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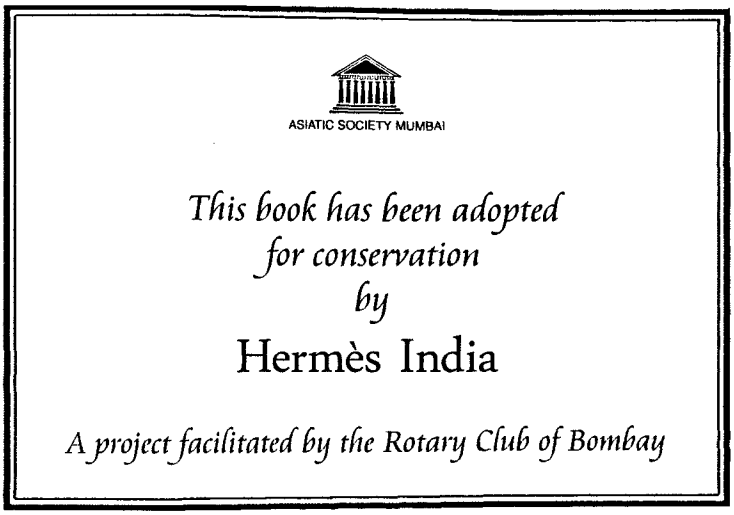

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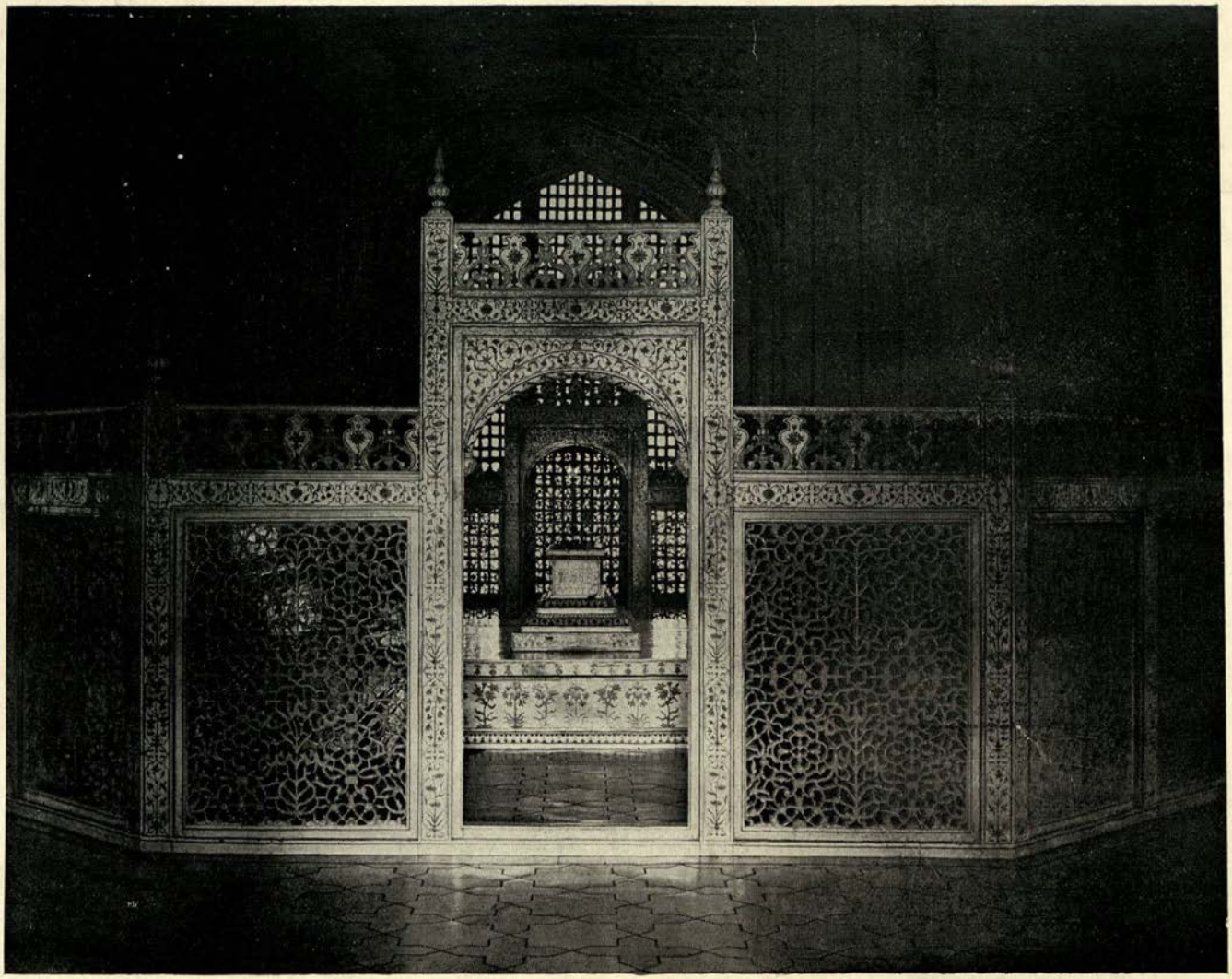

Inside of the Taj Mahal, Agra.
(Makrana Marble).

MONOGRAPH

ON

STONE CARVING

IN THE

UNITED PROVINCES.

80707

BY

H. S. CROSTHWAITE, I.C.S.

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PREFACE.

THIS monograph has been written in accordance with G. O. No. $\frac{169}{\text{I—1098-1904}}$.

In writing upon Indian stone carving, it is impossible to avoid architecture and archæology. But I have tried, as far as possible, to abstain from expressing opinions on these controversial subjects, the more so as I have little knowledge of them. In most cases I have followed the view of some well-known authority, selecting the one which seemed to me most reasonable.

While describing certain buildings in illustration of different styles of carving, I have made no attempt to give a detailed account of all the noteworthy stone buildings in these provinces. Such a task would be almost infinite, and also gratuitous, as elaborate accounts of all the great cities have already been written.

I have only had time to visit the following districts, Muttra, Agra, Jhánsi, Bánda, Benares, Mirzapur, Allahabad and Lucknow. For my accounts of the other districts I have been dependent on the reports sent by the district officers.

I have found no book written directly on Indian stone carving, but gratefully acknowledge help derived from the books mentioned in the bibliography at the end of this monograph. I also wish to thank Messrs. Burn, Moreland, Silberrad, and Pullan, C.S., for the assistance which they have given me in the writing of this monograph.

MUTTRA :
July 1905.

H. S. CROSTHWAITE.

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MONOGRAPH ON STONE CARVING AND INLAYING.

CHAPTER I.

History of early stone-carving.

The earliest form of stone-carving is undoubtedly the manufacture of stone weapons, which are found among most primitive races. Rough javelin-heads, arrow-heads, hammers, and other rude instruments have been found in Mirzapur, Allahabad, Benares, Gházipur, Bulandshahr, Basti, and throughout Bundelkhand. In Bundelkhand they are particularly common and can be found collected under the village *pipal* tree. The villager regards such stones with superstitious awe, and will convert them with a daub of red ochre into a phallus. "The stone implements from Bánda district are chiefly hammer stones of quartzite, basalt, sandstone, celts of basalt and diorite, and smaller implements made of chert. In Mirzapur the principal classes are chert flake knives and arrows."—(R. Burn). Readers are referred to J. H. Rivett-Carnac's article in the J. A. S. B., Part I, No. 3, and to J. Cockburn's article (J. A. S. B., Part III, Vol. 63) on a series of 43 stone implements found in some deep ravines south of Mirzapur.

It is stated by Fergusson that there is no stone architecture in India earlier than the 3rd century B.C. From this he draws the inference, that the introduction of stone architecture is due to Asoka, and that until his reign all buildings were made of wood, as is still the case in Burma at the present day.

There is no doubt, from the trabiated style of Hindu architecture, that it was derived direct from a wooden archetype. But, if the pillars at Delhi, Kálsi, Allahabad, and Sarnath are the work of Asoka's day, it is incredible that there was previously no stone carving. The pillar, recently discovered at Sarnath, is by no means primitive rude work, but represents an advanced stage of the carving art. The capital, formed of four magnificent lions, back to back, supporting a "dharma chakra," and the panel beneath with its excellently sculptured figures of animals, so far from being rudimentary work, are obviously the product of a long established art. The granite pillar itself, upon which the capital rested, could only have been made by skilled artisans.

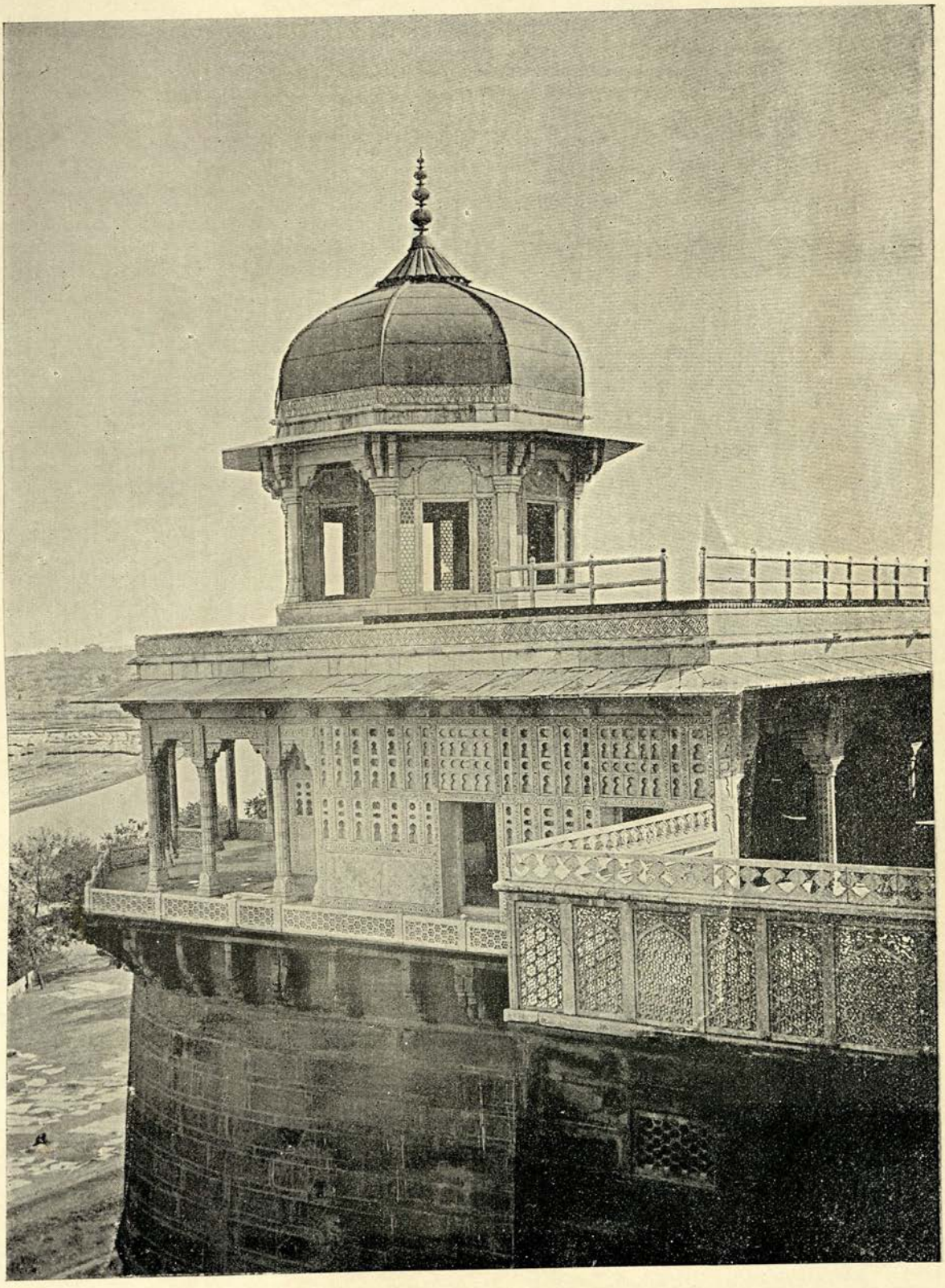
Therefore the negative fact, that no stone architecture previous to Asoka has yet been discovered, does not justify the positive conclusion arrived at by Fergusson. Indeed modern archæologists hold that the famous Sarnath stupa and the stupa near Kasia in Gorakhpur district are even older than the 3rd century B.C. The excavation of a stupa at Piprahwa in Basti district yielded a casket bearing an inscription in the character of the 3rd or 4th century B.C. So even if no specimens of stone work earlier than Asoka have yet been found, it will be safer to say that the stone mason's art must have existed in India for some centuries before his reign.

Asoka is said to have erected numerous *stupas*, *chaityas* (assembly halls), and *viharas* (monasteries). Fragments of stone railings, buildings, and other relics of Buddhism have been discovered in every part of the province except the Himálayas. The chief sites that have been excavated are Sahet Mahet (Gonda), Ahichhattra (Bareilly), Sankisa (Farrukhabad) Muttra, Behar (in Partábgarh), and Bhula Dih

(Basti). But the site, which is at present attracting the greatest attention is Sarnath. Here stone-carvings of the best workmanship have recently been excavated. Mention has already been made of the beautifully carved capital, belonging to the Asoka pillar. In addition to this many fine statues of Buddha have been discovered, also a colossal stone umbrella, which from an inscription appears to have been erected in the reign of the Indo-Scythian king Kanishka (circ. 100 A.D). It is interesting to notice, that many of the pillars excavated at Sarnath have no ornamentation on the shaft and pedestal except a single sun-flower pattern and a garland round the top of the shaft. There is not that mass of exuberant ornamentation which we find in the Jain temples at Muttra and Deogarh or the Hindu temples at Benares: the style approaches more nearly to the semi-Muhammadan Hindu style of the present day where the figures of men and animals are worked into and subordinated to floral and geometrical patterns. The beautiful lotus frieze round the tope at Sarnath, with the Brahmani ducks sitting on the lotus leaves, is very similar to the modern style prevalent at Muttra. In both the animal carving is subsidiary to the scroll-work, and in both cases it is on the scroll-work that the beauty and effect of the carving depend.

The early history of Jain architecture is very obscure. Excavations at Muttra have produced several Jain sculptures beside Buddhist railings, pillars, and statues. Most of the sculptures are in common red sandstone and of no great artistic merit. It is very difficult to distinguish Jain from Buddhist work. The only clue in many cases for deciding whether a figure is a Buddha or a Jain Tirthankar, is the dress. As a rule the Tirthankars are naked. The women also in the Jain sculptures are naked except for a profusion of jewellery round their neck, breasts, hips, and legs. The figures usually represent dancing-girls, but are far from graceful or pleasing to the eye. A. Führer remarks: "The sculptures from the Kankâlî Tila prove, that the ancient art of the Jainas did not differ materially from that of the Buddhas. Both sects use the same ornaments, the same artistic motives, and the same sacred symbols, differences occurring chiefly in minor points only. The cause of this agreement is in all probability, not that the adherents of one sect imitated those of the other, but that both drew on the national art of India and employed the same artists."

From inscriptions found on some of the Muttra fragments it appears that these temples date back to the great Kushán kings of the 1st or 2nd century A.D. At Deogarh in the Lalitpur Sub-division of Jhánsi there is a fine collection of Jain temples, which belong to the mediæval period. These temples are remarkable for the profusion of carving which adorns the door-jambs, pillars, and walls. The great majority of the sculptures represent a naked Tirthankar, either seated in the Buddhist attitude of meditation with crossed legs and upturned soles, or standing upright with hands at his side in the military attitude of attention. These two designs are repeated with wearisome iteration and are of no great artistic merit. The chest, arms, and legs are flat and smooth with no sign of muscle. From an artistic point of view the carvings on the *torans*, pillars, and door-jambs are decidedly more valuable. These are all covered with a rich mass of figure carving, to



Jasmine Tower, Agra Fort.
(Makrana Marble).

which the floral ornamentation is subordinate. Most of the figures have been somewhat worn away by time, but the facial expression was probably never of much value. There are a few carvings of Mahâvira's mother with a baby in her arms, that have a suggestion of modesty and grace; but the majority of the women have that immodest air which is characteristic of most Indian sculpture and of Jain sculpture in particular. The animals, dwarfs, and other grotesques which fill up every vacant space on the stone, are the most satisfactory. The Hindu artist turns naturally to the grotesque, and his statuary is happiest when portraying a Ganesh, a Hanumán, or a pot-bellied dwarf.

The earliest archæological remains of the Hindu era date from the Gupta kings of the 4th and 5th centuries A.D. A very finely carved shrine at Deogarh in the valley below the hill, on which the Jain temples are situated, is said to date from this era. On the outside of each wall is a large panel, finely carved with some mythological scene, while the door-jambs are covered with small figures. The carving is decidedly superior to that of the mediæval temples on top of the hill.

From the 8th to the 12th century Kanauj was the capital of the Hindu dynasty, but the whole of this period is largely unknown to history. All the great mediæval temples together with the older Buddhist and Jain shrines were destroyed by the bigotry of the Musalmán conqueror. Many, especially the Jain temples, were converted by Muhammadans into mosques. The best known instance is the conversion by Aurangzeb of the famous Vishveshwar temple at Benares into a mosque; but the practice was instituted by the earliest Musalmán invaders. Kanauj, Jaunpur, Ajodhya, Mahában, and Nohjhíl in Muttra district, all furnish instances of this conversion. The result is, that the great sacred cities of the Hindus, such as Muttra, Benares, Ajodhya, and Hardwár can boast of hardly one old temple among them.

There is no more striking example of the influence of religion on art than the history of Hindu stone-carving after the Muhammadan invasion. The Roman was nothing if not broadminded in matters of religion and art; and so it came about that—

"Græcia capta ferum victorem cepit, et artes,
"Intulit agresti Latio."

But in India the artistic influence of the conquered Hindu was powerless against the religious precept of the Qurán, which forbids the portrayal of man, or animal or bird. So for several centuries the Hindu stone-mason had to carve the designs, approved by a foreign conqueror. Generation after generation was taught to carve solely scroll work, arabesques, and geometrical patterns, until the sculpture of figures became almost a lost art. The Muhammadan invasion is thus the beginning of a new epoch in the history of native stone-carving.

CHAPTER II.

History of Muhammadan Stone-Carving.

The earliest Muhammadan stone-carving of importance in these provinces dates from 1438 (A.D.), when Ibrahim Shah Sharqi founded the Juma Masjid at

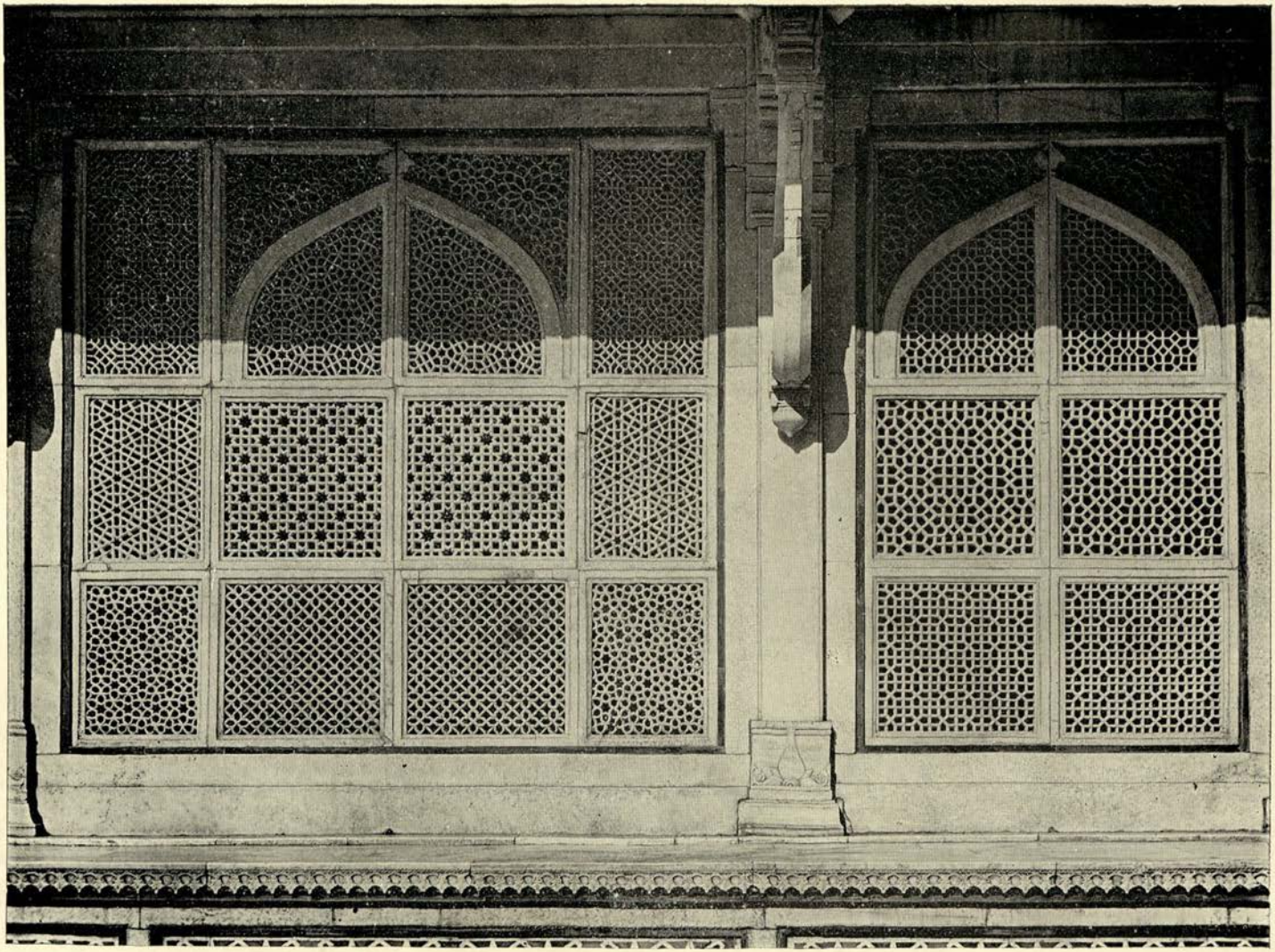
Jaunpur. A good deal of the material was undoubtedly collected from the ruins of Buddhist and other temples. The Jaunpur style is also said to be largely Persian. The best carving is on the "*mihrabs*," which are of sandstone. It may incidentally be remarked that the best carving in a mosque will often be found on the *mihrabs*, which are arched niches in the wall, a relic of the apse in a Christian church. The first mosques used by the Musalmáns were the Christian churches in Syria, Persia, and Egypt. But the origin of the *mihrab* was soon forgotten by the Musalmán architects, who contracted the *mihrab* to a size much smaller than the Christian apse. The carved lamp in the recess of a *mihrab* is a relic of the lamp which used to swing in the apse of a Christian church. (See Technical Art Series.)

Baber, we know from his memoirs, must have been a great patron of stone-carving. He writes: "In Agra alone, and of the stone-cutters belonging to that place only, I every day employed on my palaces 680 persons; and in Agra, Sikri Biana, Dholpur, Gwalior, and Koel there were daily on my works 1,491 stone-cutters." But we have no work of his extant. For us the architecture of the Moghals begins with the simple grandeur of Akbar. The carving in Akbar's reign is quite distinct in style from the beautiful simplicity of the Moti Masjid and from the old Hindu architecture with its profusion of animals, deities, and human beings.

Owing to the religious tolerance practised by Akbar, the Muhammadan influence did not completely check this characteristic of Hindu style. For instance, in the famous Gobind Deo temple at Bindraban, built by Akbar's minister Man Singh of Jeypore, there were several sculptured figures inside the temple, most of which were afterwards mutilated by the bigoted Aurangzeb. But the beauty of this Hindu temple does not rest on profusion of ornament, but on the broad effect produced by the bold mouldings, vertical and horizontal, which cover the whole exterior surface of the walls. The sculpture is completely different in style to that of the old Jain temples in Lalitpur or the modern Hindu shrines in Benares. There is a simple grandeur about the building, which shows that the mixture of two styles is not always an artistic disaster. In this case it is an artistic triumph.

Even in Akbar's Muhammadan buildings there are many traces of the old Hindu style, especially in the trabiated arches and richly carved struts and brackets. At Fathpur-Sikri there was even some figure-carving, notably in the Turkish Sultan's house, but most of it was destroyed by fanatics after Akbar's death. Mr. E. W. Smith gives an illustration of a screen in Jodh Bai's palace. Two small birds carved on the screen have escaped the iconoclast. The workmen must have been mostly Hindus, working under the direction of Musalmán *mistris*. Some of the work in the Turkish Sultana's house is said to be Chinese. The general style, however, is simple, manly, and impressive, utility and beauty being combined in a manner unfortunately rare in the annals of architecture. Even the inlaid mosaics are broad and powerful in their effect, contrasting with the delicate "*Manabbat Kari*" of Shah Jahan's day in exactly the same way as the architecture of Fathpur-Sikri contrasts with that of the Taj or the later buildings in Agra Fort.

It was probably in the middle of Jehangir's reign that *Manabbat Kari* or inlay work came into fashion. And it is largely due to this that the style of carving



Jali Screen of Shaikh Salim Chhishti's Tomb, Fatehpur-Sikri.
(Makrana Marble).

and architecture underwent so sudden a change during Shah Jehan's reign. In Agra Fort we find in juxtaposition the palace of Akbar with Hindu arch and bracket, richly sculptured in red sandstone, and the marble court of Shah Jehan's harem, carved in exquisite taste, but marked with an effeminacy, which the earlier Moghal architecture had never shown. Red sandstone has here given place to marble; mosaics to inlay. In Akbar's reign the artist was content with beautiful but comparatively simple tracery work in red sandstone, with large mosaics in coloured marbles. In Shah Jehan's reign the ivory-white marble of Makrana has replaced the red sandstone of the Vindhyans; the big mosaics and geometrical tracery of Fathpur-Sikri have been refined till they reach a climax in the jewelled inlay and flower-like tracery of the Taj, or in the virgin beauty of the Moti Masjid. There is probably no building in the world, to which the Horatian "Simplex munditiis" can more truly be applied than to the Moti Masjid. It is sometimes said that there is no carving in this mosque: but in reality it is a triumph of the stone-cutter's art. On the beautifully moulded pillars and dazzling white domes, on the marble inlaid prayer "carpets" and delicately chiselled "*mihrabs*" the highest art of the stone-mason has been lavished. The Taj, though, like the Moti Masjid, a marvel of stone-carving, is also the handwork of the jeweller. With the Taj may be grouped the Jasmine Tower, and the Diwan-e-khass in Agra Fort. In all three the carving and inlay are exquisite, elaborate and chaste. The floral patterns *(jharh)* of tiger, lilies, roses and other fruits and flowers are deeply cut and then smoothed, so as to give no impression of angularity and hardness to the eye. The sharp clean-cut mouldings, which are the glory of Gobind Deo temple and characteristic of all Akbar's carving, are now carefully avoided.

These masterpieces of Shah Jehan's reign are at once the beginning and end of an unique style. They could only be produced by a prodigal expenditure of labour and money, and so for economic reasons perforce came to a speedy end. They represented a style of architecture and sculpture quite impossible for everyday life. They are beautiful with the loveliness of a Psyche, clothed in fine raiment and adorned with priceless jewellery. The style of Shah Jehan is not a practical style, nor can it be successfully imitated by second-rate artists. Witness Aurangzeb's imitation Taj at Aurangabad and the 19th century travesty at Lucknow.

With the accession of Aurangzeb (1658 A.D.) came a sudden downfall to the architectural glory of the Moghal dynasty. Not satisfied with a passive indifference to art, this monarch set himself to mutilate or destroy all the still surviving sanctuaries of the Hindu faith. It was he that destroyed the ancient temple of Visheshwar at Benares, and the famous Kesava Deva temple at Muttra, of whose magnificence the travellers Bernier (1663) and Tavernier (1650) both make mention. The latter says: "Outside, the building is covered from top to bottom with figures of animals such as rams, monkeys, and elephants, carved in stone, and all around these are nothing but niches occupied by different monsters." Had Aurangzeb created where he destroyed, he would have some title to artistic forgiveness; but with the exception of a few mosques, erected mainly to insult the Hindus, he did nothing to hand on the architectural traditions of his forefathers. Moghal art was

always the peculiar province of emperors and princes. With the downfall of the Moghal emperors followed the complete downfall of Moghal art. Since that time the Muhammadans have gradually lost all enthusiasm for architecture and stone-carving. The modern mosque is nearly always a plain white-washed building made of bricks, which, as a work of art, will not stand comparison with the modern Hindu shrine. It is not an uncommon sight to see close to each other in the same town a brick-built mosque with heavy white-washed domes *(gumbaz)* and a stone-carved Hindu shrine with delicately tapering spire *(sikhara)*.

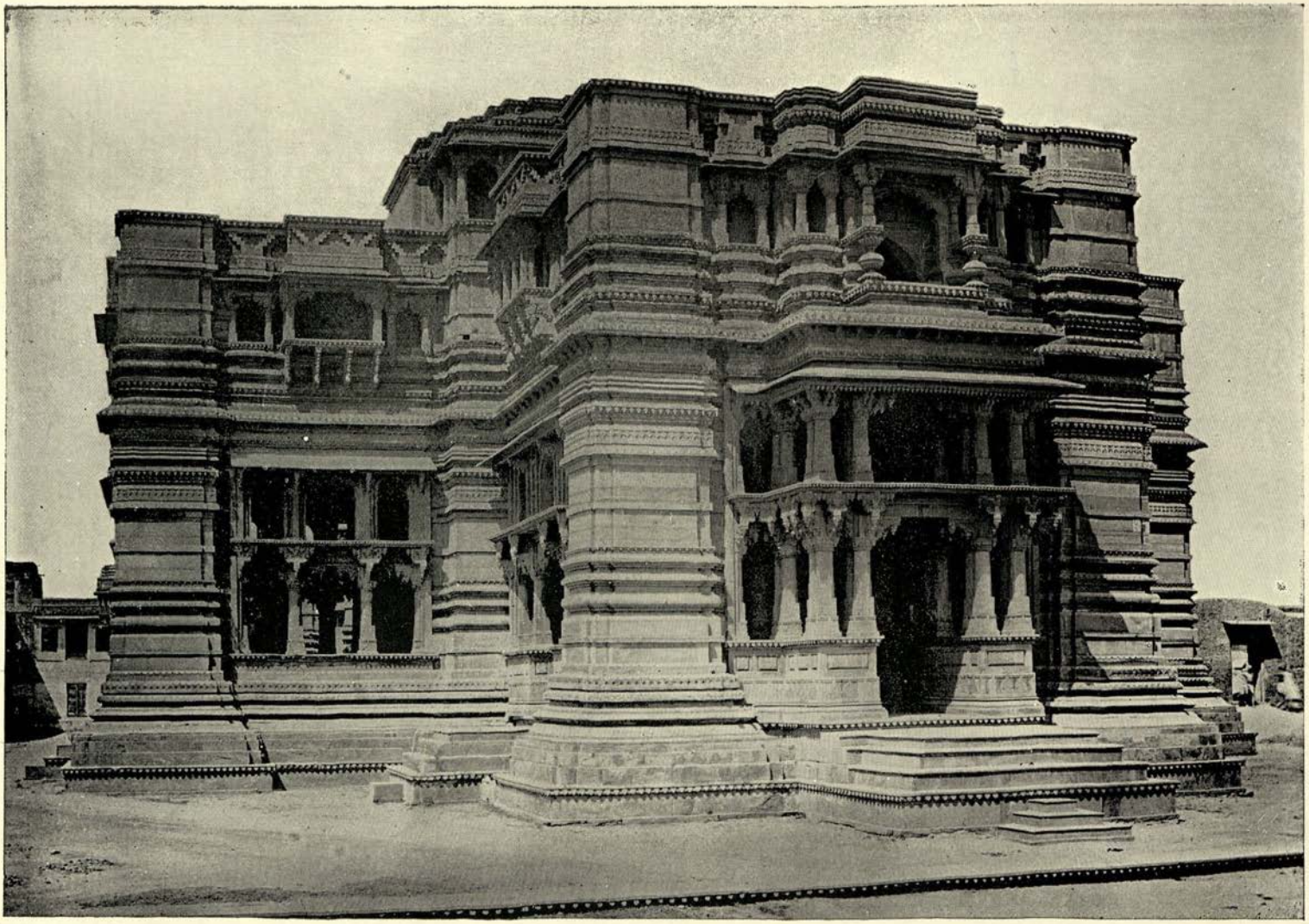
The reason may be that most of the money is nowadays in the hands of Hindu merchants; but the fact remains that the modern patrons of stone-carving are nearly all Hindus. Almost every private house, which possesses an elaborately carved façade and doorway, proves on inquiry to belong to a Hindu. There are honourable exceptions, as, for instance, is shown by the beautifully carved residence of Muhammad Ali Khan at Bulandshahr. But there is no doubt that the stone-carver depends for his daily bread on the patronage of rich Hindus. However, by a curious irony of fate, the munificence of the Hindu patron in most districts is expended on the perpetuation of a style which to a greater or less extent is pure Muhammadan. And so with a poetic justice, rarely found in actual history, the eclectic style which Akbar deliberately adopted from motives of policy, is repeated unconsciously in the modern style of his former subjects.

CHAPTER III.

The Stone-Carver.

The rules of Hindu art in its branches have been handed down for centuries in the Sanskrit of the Silpa Shastras, which have always been sealed books except to a few learned pandits. The Hindu artists kept these old treatises to themselves, partly from fear of competition and partly from jealousy of the Brahman. It is probable that very few artists ever understood the Silpa Shastras. Certainly at the present day the number is extremely small, while the ordinary artisan has not even heard of their existence.

Ram Raz, a native magistrate of Bangalore, appears to have had considerable difficulty in collecting remnants of these Silpa Shastras in 1834. He says that the works are marked by a toleration of the Jain and Buddhist religions and are therefore anterior to the great schism which divided the Jains and Hindus. The most perfect Silpa Shastra is the Mánasára, which is said to be still consulted by Hindu artists as the highest authority for the solution of contested points in Hindu architecture. It contains directions as to the various parts of a Hindu temple, the measurements and proportions thereof, together with an account of religious rites, which are to be observed at the foundation of sacred edifices. Divested of extraneous form, the Silpa Shastras contain little more than a dry detail of technical names and ritual; their greatest value has no doubt consisted in the strict rules about proportion, the observance of which explains the perfect symmetry of Hindu architecture.



Temple of Gobind Deo Bindrabun, Muttra district.
(Red Sandstone).

The height of a pedestal, for instance, is divided into 24 parts, five being given to the *upána* (plinth), one to the *campa* (fillet), twelve to the *cantha* (dado), one again to the *campa*, four to the *patica* (Platland) and one to the *campa* above. Similar rules are given as to the proportion between diameter and length of shaft, and between the length and breadth of a building.

We learn from these Silpa Shastras that artisans were descended from Viswakarma, and were divided into five classes, sculptors, joiners, braziers, jewellers and blacksmiths

The modern stone-carver is known by many names, Raj, Raj Kumar, Raj Mistri, Mistri, Karigar, and Me'mar being the commonest terms in use. According to W. Crooke (Tribes and Castes of the N.-W. P.) Raj means either a head workman (Hindu: "Raja") or is a corruption of the Persian "raz." Mistri is a corruption of the Portuguese "mestre:" it usually means a skilled stone-carver, while the term "karigar" applies to the rank and file of the profession, men engaged in rough-hewing, stone-quarrying and other "mota kam." The caste is purely an occupational one, and is recruited from many of the lower castes, among whom Crooke says that Chamárs are very numerous. But, as a rule, Chamárs only do the rough work of stone-dressing. The average mistri will tell you that there are many Brahman stone-carvers, but no Chamárs. In Benares this is explained by the fact that caste distinctions are specially strict in that city, and that nearly all the stone-carving is expended on religious edifices, where the presence and handiwork of the lowest castes, such as Chamárs, Dhobis and Bhangis, would be unacceptable to the deity. A Brahman gentleman, on the other hand, will usually say, that practically no Brahmans do stone-carving work, and evidently regards the work as below the standard of Brahman dignity. In Agra, however, nearly all the workmen of the firm of Nutthoo Ram, including the proprietor, are Brahmans.

In Benares and Mirzapur most of the workmen are Gonds, Mullahs, Telis, Barhais, Kunjras and other similar castes. In Allahabad the profession is said to be recruited from Chamárs, Luniyas, Ahírs and Gonds: in Bánda district from Kaists, Pasis, Jats, Thakurs, Musalmáns, Brahmans, Luniyas and Ahírs: in Lalitpur from Barhais, Khathis and Chamárs. The word "Laria" is added in Lalitpur to Khathis and Chamárs who follow the stone-mason's trade, the derivation being "larh," which in Lalitpur dialect means a stone. In Muttra the trade is plied by Musalmáns, Gaur Brahmans, Raj Kumars, Gadariyas, Chamárs and others. The same castes are found at Agra, which is the biggest centre of stone-carving in the provinces. There are about 1,500 stone-carvers in Agra city, many of whom are sent long distances to execute orders in other districts.

Excepting the Silpa Shastra, which, as has been said above, is either unknown or unintelligible to the vast majority of stone-carvers, the craft has no literature at all. Inquiry in the different districts has produced no traditions of any interest as to the history of the profession. This may be largely explained by the fact that stone-carving is not the sacred preserve of special families in the same way that most native professions are. There are a few carvers, whose ancestors have

practised the art for centuries, but this is quite exceptional. The demand for stone carving is naturally very variable; and the trade becomes practically stagnant in times of war or famine. At such times the stone-carver must take up some other means of livelihood; and the art is lost to his family.

The carver usually starts, as a boy, at rough hewing stone. After he has mastered this first element of the craft, he will pay a small 'prentice fee of Rs. 2 or so to a *mistri*, who teaches him the craft, by letting him sit and watch the work being done. The art of making coarse stone dishes and common idols, such as are made in Bánda district, is quickly learnt and badly paid. But the finest stone-carving, such as is produced at Muttra, Agra or Benares, can only be done by a man of some artistic ability. For this reason the best stone-carvers usually belong to a family which has practised the art for some time, as for instance the Nutthoo Ram family at Agra or the Muhammadan Yusuf at Muttra.

Wages of course vary slightly in different localities, but the general average is three to four annas a day for rough work, and Rs. 15 to Rs. 20 a month for the finest carving. With wages so cheap, stone-carving ought not to be expensive; but the native artist is a leisurely worker, who will think nothing of devoting two months to a piece of stone one yard square. Also, the Hindu horror of "dead space" necessitates a superfluity of ornamentation, which renders the erection of the smallest building a matter of great expense. The small temple of Vindeshri Prasad at Mirzapur furnishes a striking example both of the beauty and costliness of good Hindu carving. Only two mistris, a Gond and a Mullah, have been employed, each earning eight annas a day; but the shrine has already cost Rs. 50,000, and is still unfinished.

The native methods of stone-carving are reserved for the next chapter.

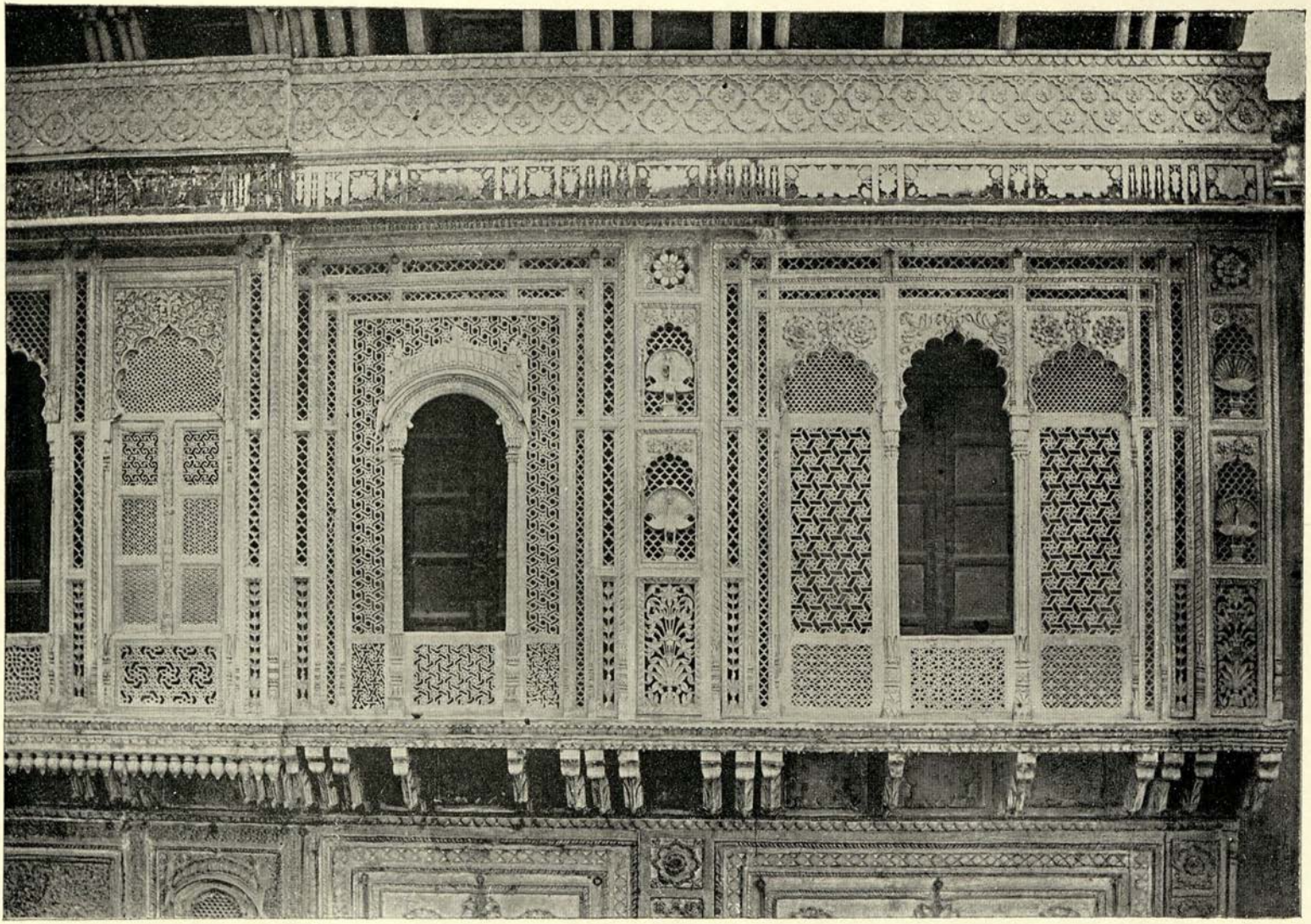
CHAPTER IV.

The Native Art of Stone-Carving.

When the stone has arrived from the quarry it must be first rough hewn and shaped. This process is a familiar sight in nearly every district of the provinces. The workman squats on the stone and pecks away at the surface with hammer and punch *(tánki)*, like a vulture pecking at the liver of Prometheus. After first roughening the stone, he smooths it with hammer and chisel *(pahuri, tánka)*, until the right size and shape is attained. This work is usually done by Chamárs or other low-caste men and is badly paid. It is not considered skilled labour; and no *mistri* will do this work unless he is a single man, working by himself.

If the stone is to be carved into the shape of an animal or man, the stone block will be passed over to another workman, who roughly shapes the stone into a fish or horse or whatever the required design may be. It is then handed over to the mistri, who finishes the carving. The first two men will only earn three annas to 5½ annas a day, but the *mistri* will get Rs. 15 to Rs. 20 a month.

If the pattern is some arabesque or floral design, the intermediate man is not required. The block is handed over, when ready, to the *mistri*, who (after invoking



Temple of Thakur Sri Bihari Ji, Muttra City.
(White Sandstone).

Ganesh, if a Hindu), draws the design in pencil on the stone. Some of the more advanced carvers know enough of drawing to be able to design plans of their own; but the majority copy some well-known conventional pattern, either floral or geometrical. The aid of a compass and right angle is usually taken to insure accuracy, but some *mistris* claim to draw by eye alone the most intricate geometrical patterns.

After drawing the pattern in pencil, the *mistri* works it out with chisel and hammer. The chisels, known variously as *tánki, pahuri, tanka, tanki nokdar, chhaini barhdar* (Lalitpur), *takuli and karina* (Chunar), *chaurasi* (Garhwál) are of every degree of fineness and together with a small hammer are the only instruments used. They are usually made by the local blacksmith and are not imported from Europe. The best *mistris* generally take the precaution of wearing spectacles to save their eyes from the stone chips. This is not so necessary in rough-hewing, where the workman can so hold his chisel as to make the chips fly in the opposite direction to his face.

No machinery of any kind is employed. This fact ought to give to the work that individuality, which machine-made articles always lack. But, as a rule, individuality is the last virtue that can be attributed to native artists. In Benares, for instance, the beauty of the temple "*sikharas*" (spires), each composed of ten to twenty miniature spires, the graceful proportion of the pillars, carved with patterns of miniature shrines, surmounted by bell and chain, point to a high standard of artistic excellence. But the eye wearies of seeing this design repeatedly imitated in shrine after shrine. Similarly in Muttra the carved façades with lattice-work balconies, the stone archways with elaborately carved spandrils are undoubtedly a thing of beauty. But it would be difficult to find in the whole city a dozen façades differing essentially in design. There is an uniformity almost worthy of our Government buildings.

This lack of individuality, which would not be tolerated in European art, is due largely to the conservatism of the people, but still more to lack of education on the part of the artist. The ordinary native *mistri* starts from childhood imitating his father's work, and by the time that he is fifteen or sixteen, is earning his living. Imitation is the keynote of his education from the very first. He has no books to read on his art, except the antiquated Silpa Shastra, which is in a dead language and practically useless. There are no schools of art which he can attend in order to acquire a more liberal knowledge of his profession. It is true the Government of India has published a "Technical Art Series of Illustrations of Indian Architectural Decorative Work for the use of Art Schools and Craftsmen." But a native carver cannot be expected to pay Rs. 3 per volume for this series, especially when the letter-press is in English.

In Europe we do not expect a man with the education of a stone mason to develop into a Michael Angelo. Every art student is made to work under a skilled teacher, and to develop his own genius by a study of all the great masters. Even under these conditions individuality has a severe struggle for existence, but in the life of an ordinary *mistri* it has no chance at all. It dies still-born.

It is difficult to see how any remedy can be applied. It would be impossible, except at great cost to the State, to set up schools of art. Probably the ordinary *mistri's* son would not attend them, even if they were to be established. The higher classes, who would appreciate the value of such an education, unfortunately look down on the sculptor's art. The Indian gentleman of to-day regards art in the same light as the Athenian gentleman of Periclean times He admires art; but as a profession it is beneath his dignity. While this attitude prevails, art can never become a liberal education, and the only change (whether for better or worse) that Indian sculpture is likely to undergo will be due to those subtle influences of time, which not even the conservatism of the Indian *mistri* can resist.

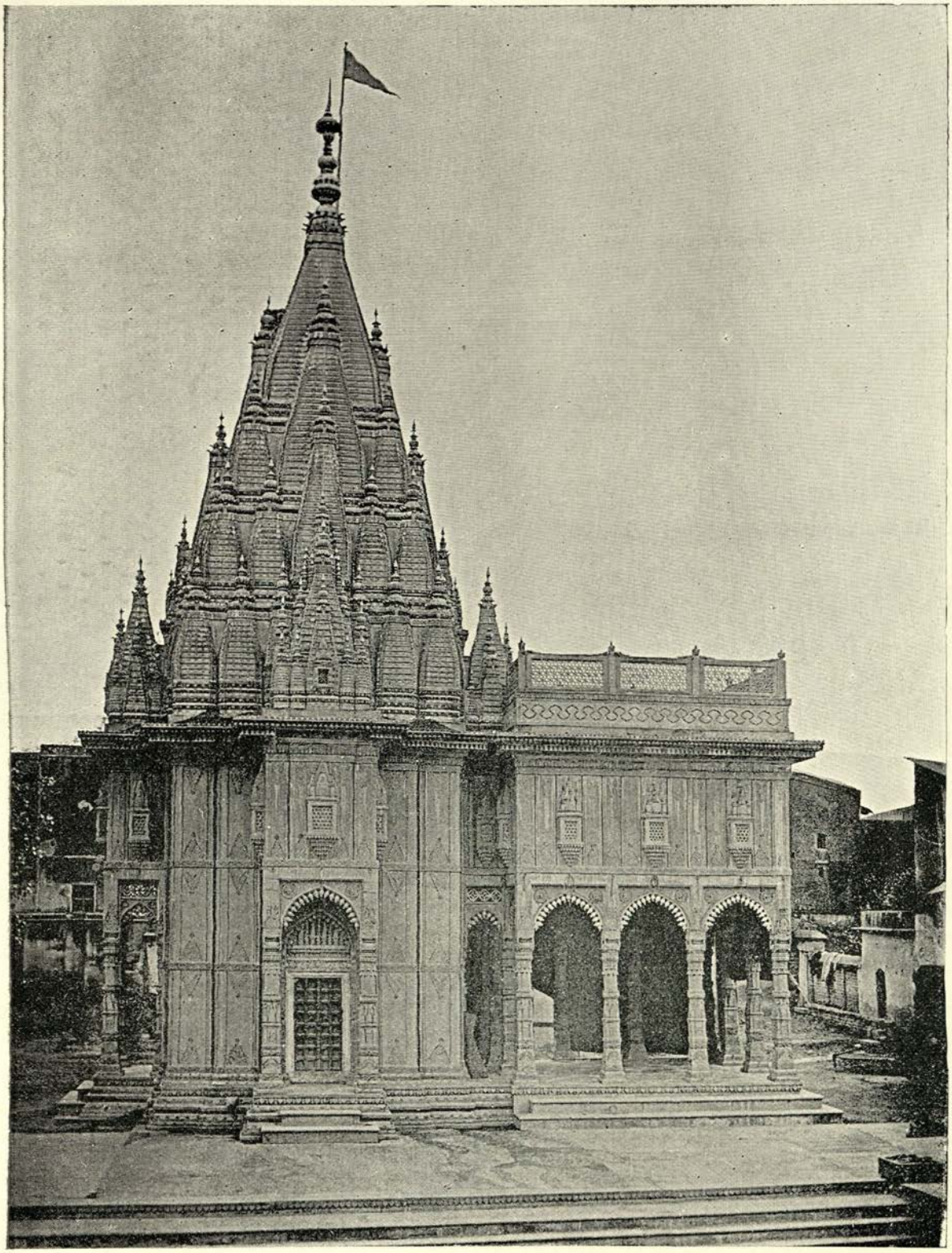
CHAPTER V.

Quarries.

Almost all the stone-carving in these provinces is confined to the south and south-western portion, and to the Kumaun division. A glance at the map will explain this limitation. Nearly the whole province is one vast alluvial plain, which produces nothing harder than kankar, a deposit of carbonate of lime. Block kankar is occasionally used for rough building, for instance in the buttresses of piers, but never for stone-carving or stone architecture in the proper sense.

The provinces are almost entirely dependent for stone on the Vindhyan range, which starting from Chunar in Mirzapur district, runs due west to Kirwi in Bánda district, thence south-west in a great sweep beneath Lalitpur, up to Gwalior and Fathpur-Sikri. The top layer of this Vindhyan sandstone is known as "the Kaimurs." It is extensively quarried at Chunár, Mirzapur, Partábpur, in the Bara and Meja tahsíls of Allahabad, in the Kirwi sub-division of Bánda, and in several places in Lalitpur. But still more important are the sandstone quarries in the Upper Bhanras to the south of Bharatpur, at Fathpur-Sikri and Agra. These quarries have furnished the stone used at Fathpur-Sikri, Agra and Muttra. The latter place is built mostly of red and white sandstone quarried in the Paharpur tahsil of Bharatpur. The prices in Muttra at present are nine annas a maund for red, and 12 annas a maund for white sandstone. The white stone is more expensive, both because the colour is more fashionable and because, owing to its less perfect lamination and greater fineness of texture it is better adapted for building purposes and elaborate carving. White sandstone, however, has this serious defect, that it loses nearly all its strength when saturated with water, and is therefore of little use for roofing purposes. The sandstone can be quarried in enormous blocks, as may be seen from the monolith statues at the Baladeva temple near Rúpbas and at the Jain temples of Deogarh in Lalitpur.

The sandstone quarries at Chunár have been worked from the very earliest times. Nearly the whole of Benares, including the old Buddhist stúpa at Sarnath, is built of sandstone, quarried in the neighbourhood of Chunár. Any one may quarry in Mirzapur district on presentation of an eight-anna petition and payment of one anna per cubic foot royalty to Government. Compensation is paid to the landowners in the rare cases where damage is caused. There is a special tahsildár of



Godowlia Temple, Benares.

the Stone mahal, which now brings in a yearly revenue of a lakh of rupees. The three classes of best Chunár stone used for sculpture are the grey *(zarda)*, the yellow *(khaki)*, and the bluish-grey *(sabza)*. The last-named is a little more expensive than the other two, as it is the rarest. For building purposes there are two kinds of coarse-grained stone, the red *(gulabi)* and the white. The latter is the harder and better of the two. Neither is used for elaborate carving.

The stone lies in layers with a hard clay deposit between the different layers. The top layer of stone is always rotten and may extend to a depth of 15 to 30 feet below the surface. This useless stone is removed by a charge of powder, which is inserted from above into a hole 18 inches deep, made by a long iron spike. The good stone is then left exposed below, and is split by the insertion of numerous small iron wedges. It is then extracted by the aid of long iron crowbars, worked by coolies. This part of the process is very lengthy, especially in the hot weather, when the clay deposit between the layers of stone grows hard as mortar. A stone of 40 maunds will take about three hours to shift. There is no attempt at using any kind of mechanical aid.

This description of stone-quarrying applies to all the quarries in the Vindhyan range. In Bánda district the royalty goes to the zamíndár instead of Government; but the quarries have not got as in Mirzapur the benefit of good metalled roads, which are essential to the development of the stone industry.

In Bundelkhand, beside the Vindhyan sandstone, there is also the Bundelkhand gneiss, the oldest rock in India. This stone, which is granite subjected to great pressure, is too hard for stone-carving. It is, however, found in primitive Chandel temples in Mahoba. Bundelkhand also produces soap-stone (steatite) which is found in Lalitpur and the south-west corner of Hamírpur. The best soap-stone carving, however, undoubtedly comes from Agra. The stone, being soft and tenacious, lends itself readily to the chisel. Beautifully carved boxes of soap-stone can be purchased very cheaply in any of the *kárkhánas* at Agra.

The white marble used so extensively by the great Moghal emperors at Agra comes from Jaipur state, where there is a famous quarry at Makrana. It is still imported largely into these provinces for the decoration of shrines and inlay work. But it is no longer used after the lavish fashion set by Shah Jehan. This is unfortunate, as the stone is incomparably more beautiful than sandstone and also lasts much longer. We have only to compare the state of the red sandstone screens in the Chunár dargah and the marble screens round Shaikh Salim Chhisti's tomb at Fathpur-Sikri. Both were built early in the 17th century; but, whereas the latter look almost as new as the day they were made, the former are rapidly crumbling away, and will soon cease to be the glory of the finest dargah in the western districts. The royalty on the Indian marbles is unfortunately so heavy that it is actually cheaper to get marble from Italy, while the work of the Italian sculptor is finer than that of the native artist. For these reasons it is said that the contracts for the Queen's memorial at Calcutta and at Agra, and the contract for the marble pavement of the Lahore museum, have been given to Italy.

In the Garhwál, Naini Tál, and Almora districts there is plenty of stone, but practically no stone-carving is now done. The jade *(pazahr)* used in inlay work at Agra is found in Kumaun.

Up to the present brick has almost entirely supplanted stone in all the Government buildings throughout the Gangetic valley. This was no doubt due to the difficulty and cost of transporting stone.

But now that the railways run direct from the Vindhyan quarries to all the stations in the centre of the provinces, it is to be hoped that stone architecture and stone-carving will receive more encouragement from Government. The architect must of course use the best materials available on the spot, and in the Doáb the best material is brick. The architecture of the midland and eastern counties in England conclusively proves that brick and beauty are not artistically incompatible. But, even if brick must form the main structure of buildings in the Doáb, there is ample opportunity of employing stone in copings, fretted windows, and decorative work.

CHAPTER VI.

Local Distribution of Stone-Carving.

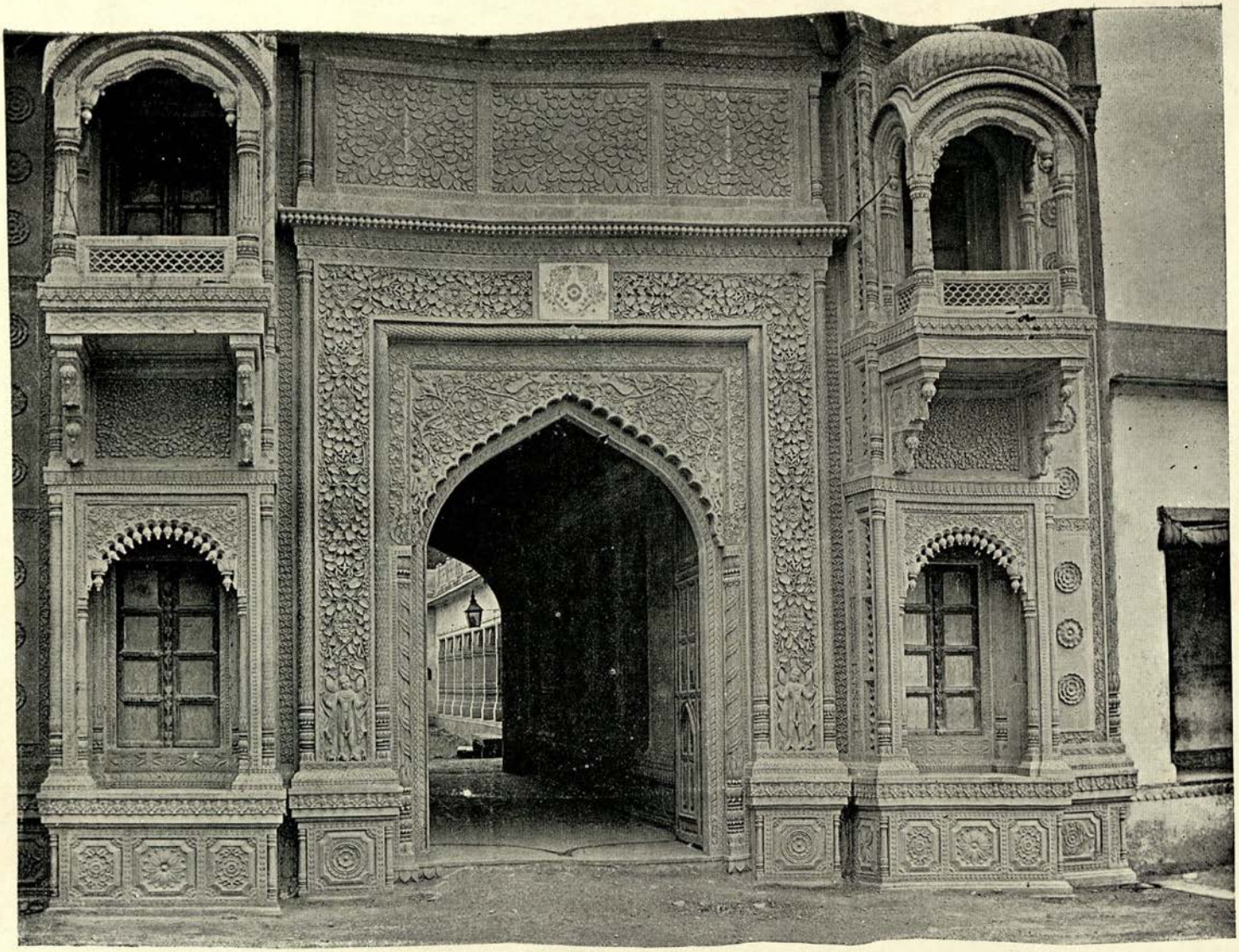
From the detailed list given below, it will be seen that the craft of stone carving is or has been practised in every division except the Lucknow division. But it will also be noticed that in a great many districts the craft has either died out or has been dependent on foreign workmen imported from Rájputána or from one of the four great stone-carving centres—Agra, Muttra, Mirzapur or Benares. The importance of these four cities as strongholds of the stone-mason is clearly due to their position near the great sandstone quarries of the Vindhyan range. The difficulty of transport in the days when railways, canals, and safe high roads were unknown, prevented the art of stone-carving from taking firm root among the industries of the less happily situated cities in the middle of the provinces. For the accounts given below I am dependent (except in the case of the six or seven most important places) on the reports sent by the Collectors of the districts concerned.

MEERUT DIVISION.

Dehra Dún.—Stone-carving is not carried on here at the present day, but some good sculptures of the Buddhist era have been excavated in mauza Jiwangarh near Kalsi in the Western Dún. At Kalsi there is an Asoka pillar, and a very perfect sculpture of an elephant.

Muzaffarnagar.—No modern stone-carving is found here. The Saiyids of Barha erected costly buildings in the 17th and 18th centuries; but the carved stones appear to have been imported from Delhi. There is some inlay in the mosque and tomb of Shah Abdul Razzak, built by the Shaikhs of Jhanjhana in 1623. The domes are decorated with blue flowers of good colouring.

Meerut.—Stone-carving is practised to a limited extent in the sadr tahsíl, where pillars and chhajjas are made. No work of any artistic excellence is produced.



Godowlia Temple Gateway, Benares.
(Red and Gray Sandstone).

Bulandshahr.—The stone-carving in this district is carried on only by workmen imported from Agra, Muttra, and elsewhere to embellish the houses of wealthy native gentlemen. Mr. Growse, while Collector of this district, induced several such gentlemen to introduce ornamental screens and other filagree stone work into the façades of their houses and shops. The best examples are to be seen at Bulandshahr and Khurja.

AGRA DIVISION.

Muttra.—With the exception of Agra and Benares, there is no city in the provinces more beautified by the art of the stone-carver. The style of carving predominant at Muttra is almost pure Muhammadan ; the patterns are mostly delicate arabesques, amid which an occasional peacock is the only sign of Hindu workmanship. "*Jáli*" work is also carried on to a great extent, and is particularly effective on the balcony screens which adorn the upper stories of the houses in the city. But often owing to the narrowness of the streets the elaborate workmanship is practically wasted on the passer-by, who can only view the carving by craning his head upwards. In the main streets, however, the effect of the stone lattice screens and elaborately carved doorways is very fine. Agra is a city of masterpieces of Moghal art, Benares a city of Hindu shrines, but there is no city in these provinces that can compare with Muttra in the beauty of her houses. Even the poorest houses have a stone gateway with a simple ornamentation of rosettes, while the houses of the richer people are decorated with the most intricate and beautiful carving.

There are about 100 first-class workmen, who practise a flourishing trade both in Muttra city and in other cities such as Háthras, Aligarh, and Bulandshahr, where rich zamíndárs require their services. The finest specimens of modern carving in Muttra are the local museum and the cenotaphs of the Seths in the Jumna Bágh. The former is the work of Yusuf, a Muhammadan *mistri*, and is remarkable for the elaborate intricacy of the carving. The latter were made by Ghassi Chaudhri, but are purely Muhammadan in style. The tracery screens are of exceptional beauty, though they will not compare with the perforated screens at Agra and Fathpur-Sikri. Illustrations of these buildings will be found in Mr. Growse's Monograph. Muttra has been the home of stone-carving from the earliest years, as is shown by the excavations of Buddhist and Jain carvings. Relics of these past ages are scattered all over the district and show the vast change that has come over Muttra stone-carving ever since the tolerant Akbar started the electic style found in the Gobind Deo temple at Bindraban.

At Goberdhan, Mahaban, Bindraban, Gokul, Bursana, and other places in the district temples, tanks, and *chhatris* of great beauty and historic interest are to be found. They all belong to earlier styles of stone-carving and have little in common with the modern Muttra style. The greatest contrast between the old and new styles is afforded by the two temples which crown the small hill of Bursana. The old temple with its three solid square-based *sikhras* is totally devoid of ornament except for the fine marble "*chhatri*" of a Gwálior rája. The new temple, which is being erected by the Mahárája of Bharatpur at the cost of 4½

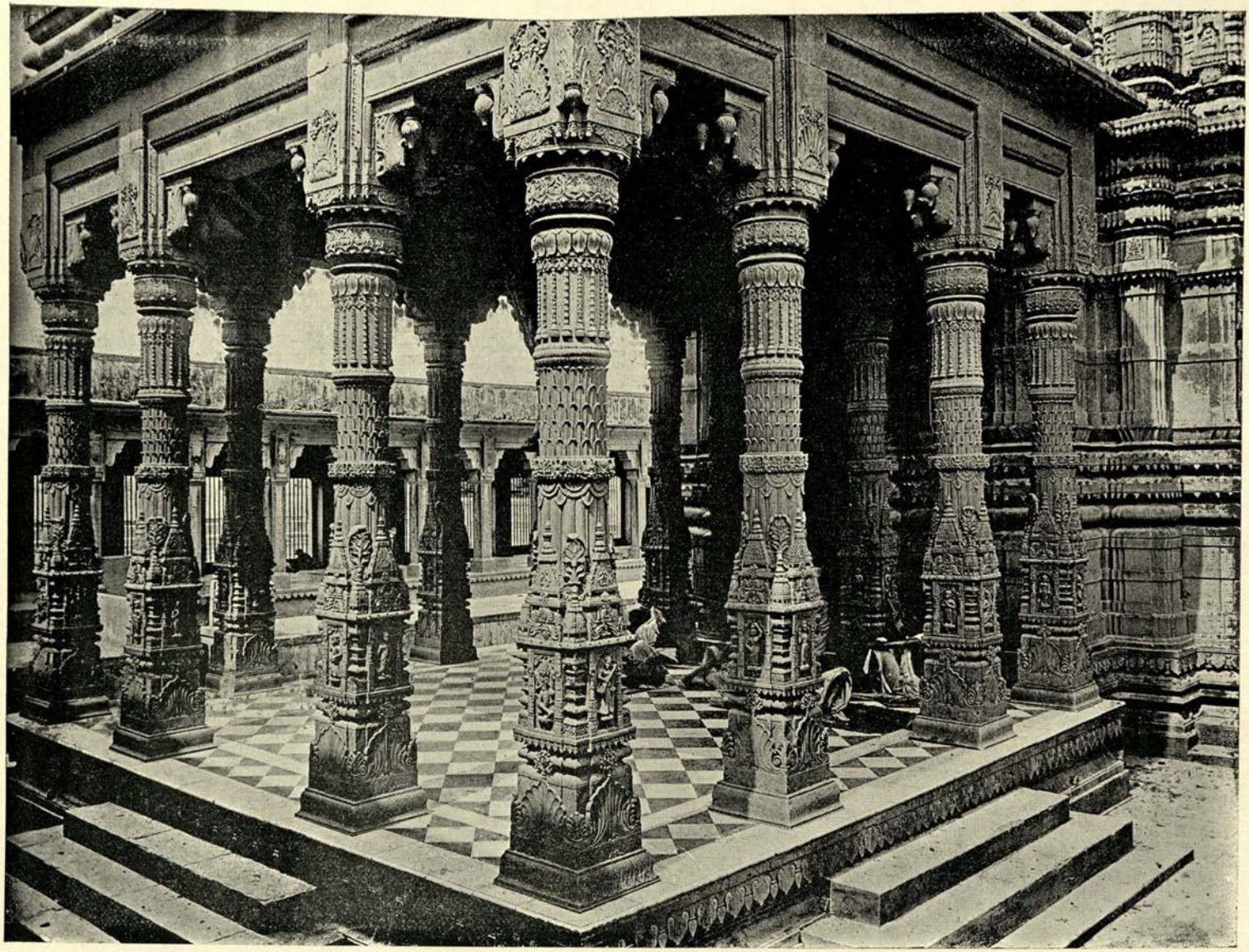
lakhs, looks at a distance exactly like a modern "hydro." The workmen mostly come from Bharatpur, for which reason the carving is not so Muhammadan in style as it is at Muttra. Still carved figures are comparatively few, and usually subordinate to some floral or geometrical design. Round the outer courtyard *(pracara)* there are some very crude mural paintings representing scenes in the life of Krishna, such as his playing battledore with the milkmaids, stealing their clothes while bathing, and upholding the hill at Gobardhan, while Indra thundered in vain. What an opportunity for the art of the sculptor! It is sad that such a "leaf-fringed legend of deities or mortals or of both" should be portrayed with tawdry paint. The inner temple is the most pleasing part of the work. The windows of perforated stone in the side aisles produce that subdued light which is so grateful to dwellers under an Indian sun. The shrine and the doorway of the shrine are made of white Makrana marble. On one side there is a panel on which there is a conventional carving of the "Kalabriksh" with a peacock perched in the branches. The tree is covered with grapes and pomegranates, while in the shade beneath stands a cow with a somewhat dog-like calf. The brackets and cornices are mostly quite plain, except in front of the building, where they take the form of rampant horses. This is the reason why brackets are often called "*ghuriya.*" There is no stone-carving in the guest-chambers which are built exactly after the pattern of a Public Works Department bungalow, even down to the stone book-shelves and the "up and down" dado. From the point of view of stone-carving, the whole building has comparatively few merits; but it is exceptionally interesting as an example of the modern Hindu style, which is the outcome of Hindu, Muhammadan, and European influences. The result is not altogether happy, and it is a matter for congratulation that Muttra itself is still comparatively free from the influence of Western art.

Readers interested in the older buildings of the district are referred to Mr. Growse's monograph on Muttra district.

Agra—Is deservedly the most famous centre of stone-carving in these provinces. The carving at Fathpur-Sikri, Agra Fort, Sikandra Bágh, the Táj Mahal, and Etimad-ud-Dowlah's tomb has made the architecture and stone work of Agra famous throughout the world. Agra also possesses some of the finest inlay work in the north of India and is the only place in these provinces where workmen, capable of doing this "*pietra dura*" are to be found.

Baber in his memoirs tells us that he employed daily in Agra 680 native stone-cutters. Akbar, Jehangir and Shah Jehan must have employed three or four times this number on the Fort, Sikandar Bágh, and the Táj Mahal. Even at the present day there are probably 1,500 stone-carvers in Agra, many of whom are constantly executing commissions in different districts and even in other provinces. In Agra itself the large renovations, undertaken by the present Government, afford employment to numerous stone-cutters and incidentally keep alive the art of marble mosaic work and stone-inlay which flourished in the time of the great Moghals.

The inlay and perforated stone-work, for which Agra is chiefly famous, will be found discussed in separate chapters.



Temple of Durga, "The Monkey Temple," Benares.

Readers are referred to the guide-books on Agra, Bernier's Travels, and Mr. E. W. Smith's beautifully illustrated work on Fathpur-Sikri.

Farrukhabad.—There is no modern stone-carving here. In Kanauj town there are two buildings worthy of notice, the Juma Masjid, and the Makhdum Jahaniya. The stone-carving of the first is obscured by whitewash—a reprehensible habit, which is found in several districts. The second building dates from Hijri 881 and is made of Jaunpur stone. Nothing is known of the workmen, except that they were not inhabitants of Kanauj.

Etah.—A few artisans carry on stone-carving of a simple character, but their work has no artistic excellence.

ROHILKHAND DIVISION.

Budaun.—There is very little stone-carving in this district, but one somewhat ambitious piece of work, now under execution in Gawan, deserves mention. The Thákurdoára that is being built by Musammat Janki Kuar in honour of her late husband is a fine building of Agra stone, the floor being of Makrana marble. The stone door frames are elaborately carved, and the inner, middle, and outer walls are to be similarly ornamented. Each of the doorways in these three walls will be supported by two carved *duárpáls* (or door-keepers) in relief, and on both sides of these will be pairs of Gopis. These figures are to be set in an elaborate background of flowers, creepers, peacocks, and parrots. The sculptor is a mason of Háthras, who has done similar work in Muttra, Bindraban, and Aligarh. The estimated cost of the Thákurdoára is Rs. 15,000 to Rs. 20,000.

ALLAHABAD DIVISION.

Cawnpore.—There are some sculptors in Cawnpore city who practise ordinary stone-carving, and often go to other districts for the purpose.

Allahabad.—There is no stone-carving done except in the Sadr tahsíl, and even there only to a very moderate extent. The modern mahájan prefers to imitate the economical simplicity of Government buildings instead of spending a lakh of rupees on an elaborately carved house front. Even if he does patronize the stone mason to the extent of a few conventional "*suraj-mukhi*" (sun-flowers), he will probably spoil the natural beauty of the stone with a daub of white-wash or red paint.

Perhaps the best piece of modern carving is the house front of Radha Raman, a native banker, in Dáraganj near Allahabad fort. This was built 80 years ago by the present owner's grandfather. The *mistri* came from Jaipur. The designs are mostly arabesques with a few figures of peacocks. The style in its near approach to the Muhammadan closely resembles the modern Muttra style. The general effect is excellent, though, as is so often the case, somewhat spoilt by squalid surroundings. A little further down the same street is a small shrine of Mahadeo, built about 10 years ago by an old *mistri* of the Ahír caste. It is a good example of the modern Hindu style, now prevalent in Benares. The usual figures of "*paris*" (fairies) are well executed, and the *sikhara* with its profusion of carved figures is most effective.

In Allahabad city there is no stone-carving workshop or mahál specially appropriated by stone-carvers. As in other towns, the masons are recruited from all the lower castes, such as Chamárs, Luniyas, Ahírs, and Gonds.

Bán la.—The only stone-carving is done at Karwi. There is a colony of Pásis, dating from the time of Binaik Rao, the Mahratta, who lived during the first half of the 19th century. The carving is indifferent; some of the stone-tracing is fair, but the figures are very rudely carved. Their patterns are few, the *ling jotri*, and Hanumán in the Bír and Dás incarnations.

The Dubes of Khandeh have been building some fine temples and houses during the last twenty years. Many of their workmen came from Jaipur, Gwalior, and other Rájputána states. All the best work was done by carvers from outside Bánda.

In Bánda city there are four Muhammadan firms, which cut and polish semi-precious stones, such as agates, jaspers, moss-stones, water-stones, onyx, amethysts, etc. The stones are cut by an iron wire stretched on a bow (*"kumani"*). The cut surface is then smoothed on a wheel made of hard *kuran* and more carefully polished on a wheel of soft *kuran*. The stones, thus cut and polished, are made into paperknives, knife-handles, letter-weights, etc. One of these Muhammadan firms gained a bronze medal at the recent Delhi exhibition.

Hamírpur.—There are several Chandel temples at Makarbai, Mahoba, Dinai, Nanwara. The shrine at Makarbai is the best preserved and most highly ornamented. There are some Jain statues in black marble, the best specimens being at Dinai. There is no modern statuary. Soapstone is worked at Gaurahri, but the products possess no artistic merit.

Jhánsi.—In Jhánsi there is no stone-carving at present done. The only work is that of splitting up coarse slabs. The district, however, possesses buildings of great archæological interest, Jain and Chandel temples in Lalitpur sub-division, which date back to the early Gupta kings. There are also underground stone-buildings which, from Sanskrit inscriptions, appear to have been made in Sambat 1235. The stones are decorated with figures of men, animals, plants and flowers, and have been put together without any mortar. The old Jain temples are covered with exuberant ornamentation, usually rows of figures or animals. The old Shastric injunction to adorn the shafts of the columns with demons and animals is literally obeyed. There is a modern Jain temple of good workmanship at Maraura, but the artists are said to have come from Saugor in the Central Provinces.

It is obvious that there must at one time have been a large number of stone-carvers in the district. It is also obvious from carvings, such as those on the Gupta temple at Deogarh, that some of the workmen were real artists. But in modern times the stone-carving craft has declined until it has almost reached a standstill. Stone masonry will of course always continue in Jhánsi district, because stone is the handiest material for building. But the wealthy patrons, who rejoiced in erecting elaborately carved temples, have apparently ceased.

BENARES DIVISION.

Benares.—With the exception of Agra and Muttra, there is more good stone-carving to be seen at Benares than in any other district of these Provinces. The following are the most important of the old buildings in Benares and afford good examples of the earlier Hindu style :—

(1) The Briddhkal temple in Dáranagar, probably the most ancient building in the Hindu style.

(2) The Man Mandir observatory, erected by Rája Jai Singh about 1700 A.D. The carving may be compared with the carving on the Gobind Deo temple at Bindraban.

(3) The temple of Durga, commonly known as the monkey temple. It is probably about 100 years old. It is carved in red sandstone and is remarkable for the profusion of carved figures, which adorn the pillars, the walls, the panels, and the "*sikhra.*" The carvings of different deities form a regular pantheon, a decoration especially characteristic of the Benares temples. The fringe of Noah's Ark, like animals which surround the base of the spire, is well executed, but the figures are too high up to be properly seen from the ground. The priests of the temple say the workmen came from Nathore and were not Benares *mistris.* But the work is very characteristic of Benares.

(4) The Ráj Ghát cloister, made of materials sculptured with Buddhistic devices.

(5) The ruins of the old temple of Vishveshwar, out of which Aurangzeb erected the present Gyanbapi Masjid. The carving is of the same type as at the Gobind Deo temple and is probably a little older. The sculptured figures were of course all destroyed by Aurangzeb; but the boldly carved scroll work still remains and must have had a magnificent effect on the original buildings.

In the modern temples at Benares, the old Hindu style has been considerably modified by Muhammadan influence, though by no means to the same extent as at Muttra. In the Tagore temple, which is now in course of construction, there are hardly any figures to be seen. The head *mistri* explained that his patron had forbidden the insertion of carved figures. The building, however, is in the true Hindu trabiated style. The struts supporting the pillars are clumsy and unadorned.

The best modern carving in Benares is to be seen at the Godowlia temple, erected by the Mahárája of Benares. The design of the gateway is obviously taken from the gateway of the Chunár dargah, even down to the intermixing of red and grey stone. There are the same "*daricho*" with richly carved struts on either side of the gateway, and the same profusion of carving. The carving is, however, different. In the modern gateway the long trailing sprays of vine and lotus are exquisitely carved, and possess the merit of being both artistic and true to nature, the usual "*paris*" (fairies) are also well carved and harmonize with the background of vine and lotus. The subordination of these figures to the general design is characteristic of the modern Muttra style. The temple is worthy of the gateway. It is a typical example of Benares architecture and Benares carving. The special feature of the Benares temple is the "*sikhara,*" which is composed of several miniature "*sikharas*" culminating in a gilded "*kalsa.*" In this temple the pillars are carved with great minuteness, the design being a fringe of bells round the shaft, beneath which are carved miniature temples. A false door, carved in stone, is the only artistic fault in a very beautiful temple.

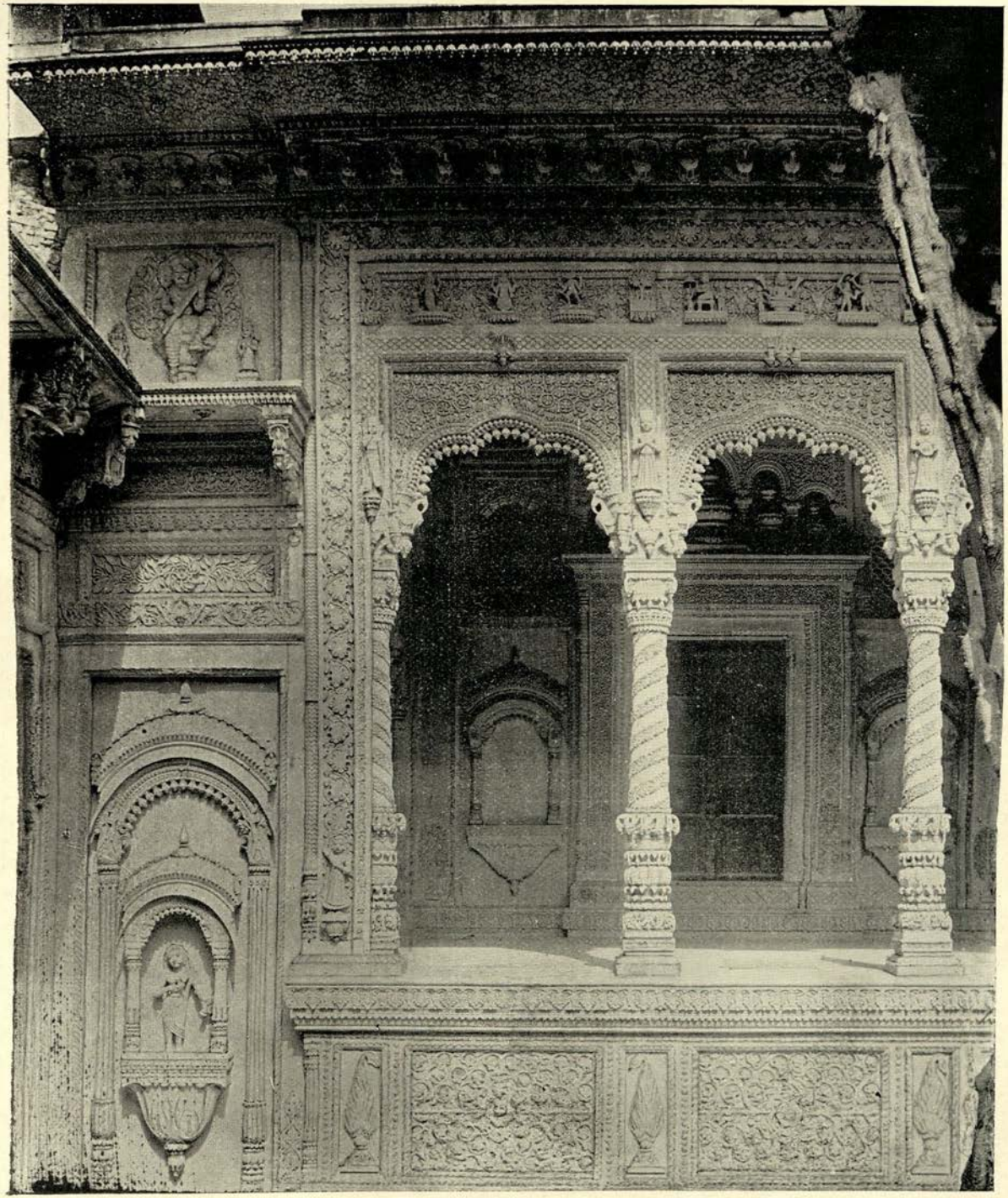
The number of temples in Benares is steadily increasing. In 1868 according to the Reverend Sherring there were 1,454 shrines in Benares city. Every year pious Hindus are increasing the number; but unfortunately the tendency is to repeat the same design with a constancy which must prove fatal to artistic genius. This lack of originality, which is also noticeable in the old Jain temples at Deogarh and in the modern carving at Muttra, is no doubt due to the defective education of the Indian *mistri*. From his youth up he is taught to copy. He does not know the artist's joy of expressing the creations of his own imagination.

Mirzapur.—There is a lot of good stone-carving in Mirzapur city and in Chunár. The carving is not devoted so exclusively to religious edifices as is the case at Benares. There are several well carved façades in the main streets of the city besides numerous shrines to Shiva, built after the Benares pattern.

The two best examples of modern stone-carving are the Town Hall and the temple of Vindeshri Prasad. The former was built of grey Mirzapur sandstone between 1878—88. The workmen, who were all local men under the supervision of a Gond *mistri*, were mostly Hindus, but the patterns belong almost entirely to the Muhammadan style, the usual arabesques, the *angúri bel, suraj mukhi, chandani*, and other geometrical patterns. The long spraying tendrils are borrowed from Benares patterns and are very effective and well carved, except in the upper part of the tower, where the workmanship is poor. There are a few striking gurgoyles, and the usual unrecognisable crocodile performing the office of a rain spout. The struts *(tora)* beneath the balconies are square and heavy with no ornamentation to hide their utilitarian object. The railing *(katehra)* of the balconies is of simple perforated stone and does not call for remark.

The most elaborate workmanship is reserved for the entrance gate. Here the carving itself is excellent, but the designer has unfortunately attempted to combine Eastern and Western ideas. On either side of the door are two marble inscribed slabs, over which lean two female figures, half European and half native in appearance. The effect is not pleasing, though the figures are not in such bad taste as the *pseudo*-Greek damsels in the Radha Raman temple at Bindraban. The eye, however, turns with relief to the small squat monkeys, which support the base of the inscriptions. Some of the other figures over this door are exceptionally well carved, especially an eagle, which is obviously copied from the lectern of an English church. This is somewhat incongruous in juxtaposition with fairies and women, sculptured after the usual native pattern. The building, as a whole, does great credit to Mirzapur stone-carving.

The temple of Vindeshri Prasad at Mirzapur will, when it is finished, be one of the most elaborately carved shrines in the whole of India. It is unfortunately situated so that it can only be approached through three or four mean courtyards and passages. The style is distinctly more Hindu than in the case of the Town Hall, though the Muhammadan influence can be traced in the countless arabesques, flower and leaf patterns, which cover every inch of the stone between the figures. The artist, who is a Mullah, earning eight annas a day, is not happy as a sculptor of women, the feet for instance being flat and squared at the toes and the body out of proportion.



Section of Temple of Bindeshri Prasad, Mirzapur.
(Chunar Sandstone).

These defects are not so apparent in the miniature figures of which there is a series representing Krishna's life. The building has already cost Rs. 50,000 and is temporarily at a standstill for want of funds. The fineness of the work may be gathered from the fact that a single piece of "*jáli*" work about six feet by three feet costs Rs. 200.

There is some good carving to be seen on several shrines of Shiva by the riverside. These temples are made of white and pink Mirzapur stone, and are covered with figures, mostly of women, which are fairly executed.

At Chunár in Mirzapur district there are a large number of quarries, and some firms of sculptors, who produce good work. But from the artistic point of view the interest of Chunár centres on the old dargah built by Muhammad Wasil in 1618. The entrance gateway, which is made of yellow and pink Chunár sandstone, is an exceptionally fine example of early Muhammadan stone-carving. The elaborately carved balconies or "*dariche*" on either side of the gate are beautifully executed. The arabesques are of the usual kinds, the "*athpattiya*" being the most effective. The struts which support the balconies are very richly carved and convey no impression of heaviness, the common fault of struts in this district.

Inside this gateway are several mausoleums, which are surrounded by red sandstone lattice work, in which every geometrical pattern of "*jáli*" is to be found. The floral "*jáli*" patterns, which came into fashion after Akbar's time, are not used here. The appearance of this carving is well described by Bishop Heber as "more like embroidery than the work of the chisel"—a description which applies still more truly to the marble screens of Agra. The Muhammadan gentlemen, who are trustees of this dargah, would be well advised to repair the broken stone in these screens which are rapidly crumbling away.

Chunár fort, which stands on a hill above the Ganges, is a magnificent pile; but it was made for use and not for show. It is built of red sandstone, hewn in great blocks, and has practically no ornamentation.

Jaunpur.—Modern stone-carving is only practised in the city itself, and even there to no great extent. There are only three modern buildings worthy of mention, the imámbára in Mahalla Pandariba, the temple of Rattu Lahu in Kaseri bazaar, and the temple of Hajan Kasera. The stone comes from the Mirzapur quarries.

In the past, in the 14th and 15th centuries, when Jaunpur was an imperial city, the stone-carver's art was in a more flourishing condition. The fort, with its finely decorated gateway, and the celebrated Jaunpur mosques belong to this period. Of these the Zanjiri mosque, built by Ibrahim, is remarkable for its beautiful screen, which indeed is almost all that is standing. It derives its name from the chain-like ornamentation—a long raised Arabic inscription, the only instance of this kind of decoration in Jaunpur. The Juma Masjid is the largest and most magnificent, while the Atala Masjid is the most richly and ornately carved. All three show an abundance of carving, especially lotus rosettes and other floral designs, and profusely decorated string courses.

The ornamentation, however, appears to be older than the mosques, and is said to be largely Buddhist. It is established that the materials for the mosque were

mostly gathered from the ruins of Hindu and Buddhist temples. The workmen were Hindus, as is shown by the masons' marks (see Führer's Sharqi Architecture of Jaunpur). Even at the present day five out of the six best stone-carvers in the city are Hindus.

The present slackness of the trade is apparently due to lack of patronage. With the Chunár quarries close at hand, the Jaunpur workmen could, if encouraged, recover their old reputation.

KUMAUN DIVISION.

Almora.—The stone-carving industry is now rapidly becoming extinct. There are still some workmen in Almora city, who are capable of good work; but there is little or no demand for their services.

The only remarkable specimens of stone-carving all belong to a remote period. In front of the shrines is carved the peculiar "vehicle" of each deity, the bullock for Mahadeva, the lion for the goddess Devi, and the vulture for Vishnu.

The three most noteworthy old buildings are the "Ek hathiya ka mandir," the house of nine stones, and the temple of Badri Nath in Srinagar. The one-handed shrine is said to have been carved out of a huge boulder by a workman, whose hand had been cut off in expiation of a crime. The shrine is about two yards high and contains a figure of Shiva and a Shakti (throne) all carved of a single piece of stone. In front of the Badri Nath temple there is a finely sculptured vulture, about one cubit high. It is said that the patron was so pleased with the artist that he gave him money and a village, but at the same time cut off his hands from fear lest he should execute for some other patron a still finer work of art.

Garhwál.—In the town of Srinagar there are a few Doms, masons by profession, who in the pilgrim season between April and October make little statuettes of Hindu deities. The stone is first cut with a saw *(ari)*, after which the design, traced with lead or charcoal, is cut out with chisels *(chaurisi tanke harja)*. The stone is polished, after the carving is finished, with sand and water, and is then varnished. With the exception of these statuettes, there is no stone-carving in this district. This is no doubt due to the poverty of the country.

FYZABAD DIVISION.

Partábgarh.—There is no stone-carving industry at the present day. There is some good carving on a house at Mánikpur, which was, however, done by imported workmen. It is in the same style as Fathpur-Sikri, but very inferior.

There is some ancient Buddhist stone-carving, which was excavated at Behar, the site of an old Buddhist temple.

CHAPTER VII.

Statuary and Figure-Carving.

Statuary and figure-carving are undoubtedly becoming yearly less popular, and more subordinate to the scroll work, floral and geometrical patterns, which were alone tolerated by the Muhammadans. This change of style is obviously due to the fact that after the Muhammadan invasion of India the Hindu workmen were compelled for two or three centuries to execute the designs, which were approved by their victorious patrons.

This influence has exercised the greatest effect on the stone-masons of Muttra. The modern carving at Muttra is infinitely more akin to the Muhammadan than to the old Hindu style, as seen at Lalitpur or to a less extent at Benares and Mirzapur. Nearly all the ornamentation consists of delicate floral sprays, scroll work and geometrical patterns, the figures of fairies, birds, and animals being few and worked into the general design unostentatiously. The injunction in the Silpa Shastra, that pillars should be adorned with figures of demons and animals, has almost been forgotten. In fact, as Mr. Growse remarks, in ages to come it will be as difficult for the archæologist to decide from a shattered fragment of a present-day temple, whether it belonged to a "*mandir*" or a "*masjid*," as it is now to decide between the claims of Buddhist and Jain to relics of mediæval India.

In Benares and Mirzapur, however, there is still a considerable amount of figure-carving, which does not differ much in style from the old Jain and Buddhist carvings. But even in these two towns the Muhammadan influence is producing a slow but steady effect. The remark, that there were only two small figures on the whole of an elaborately carved temple at Benares, produced from the head *mistri* the explanation that his patron had forbidden the use of figure ornamentation. If this temple, which is still in course of erection, represents the latest fashion at Benares, it follows that this holy city of the Hindus will soon pass under the domination of Muhammadan art as completely as Muttra, the rival centre of Hinduism. In this case the combined influence of Muttra and Benares would soon extinguish the old Hindu style. But as long as the Hindu religion remains, there will always be a large demand for the statues of popular deities, such as Ganesh and Hanumán.

The most striking features about Hindu statuary are a lack of beauty and a fondness for the grotesque. For the archæologist Hindu statuary possesses the greatest interest. It is nearly always religious in character, and each figure or group of figures possesses a meaning which is clear to the student of mythology. Even for the ordinary layman this statuary possesses a fascination, which in ultimate analysis is due to the human interest, the "homo sum; humani—," that attracts alike the artist and the Philistine. But, after making every allowance for difference of artistic taste between East and West, we cannot say that Hindu statuary is beautiful as Greek statuary is beautiful.

"Praxitelean shapes, whose marble smiles
Fill the hushed air with everlasting love."

We do not believe that the most ardent admirer of Hindu statuary would feel justified in applying these lines to any statue ever produced in these provinces. It is true, that some of the old Buddhist carvings very nearly approach the beautiful. The figure of Buddha, discovered at Perkham and now placed in the Muttra museum, is undoubtedly a beautiful piece of work; but the beauty lies, not in the face, which is too heavy and expressionless, but in the delicate waves of the drapery. The face itself, though not without dignity, lacks life. At the same time there is probably in these provinces no modern statue which can rival this mediæval production. The modern female sculptures, such as those in the Chauk Bazaar at

Muttra or the Radha Raman temple at Bindraban, are most offensive. They combine the indecency of the old Jain statuary with the vulgarity of debased European art.

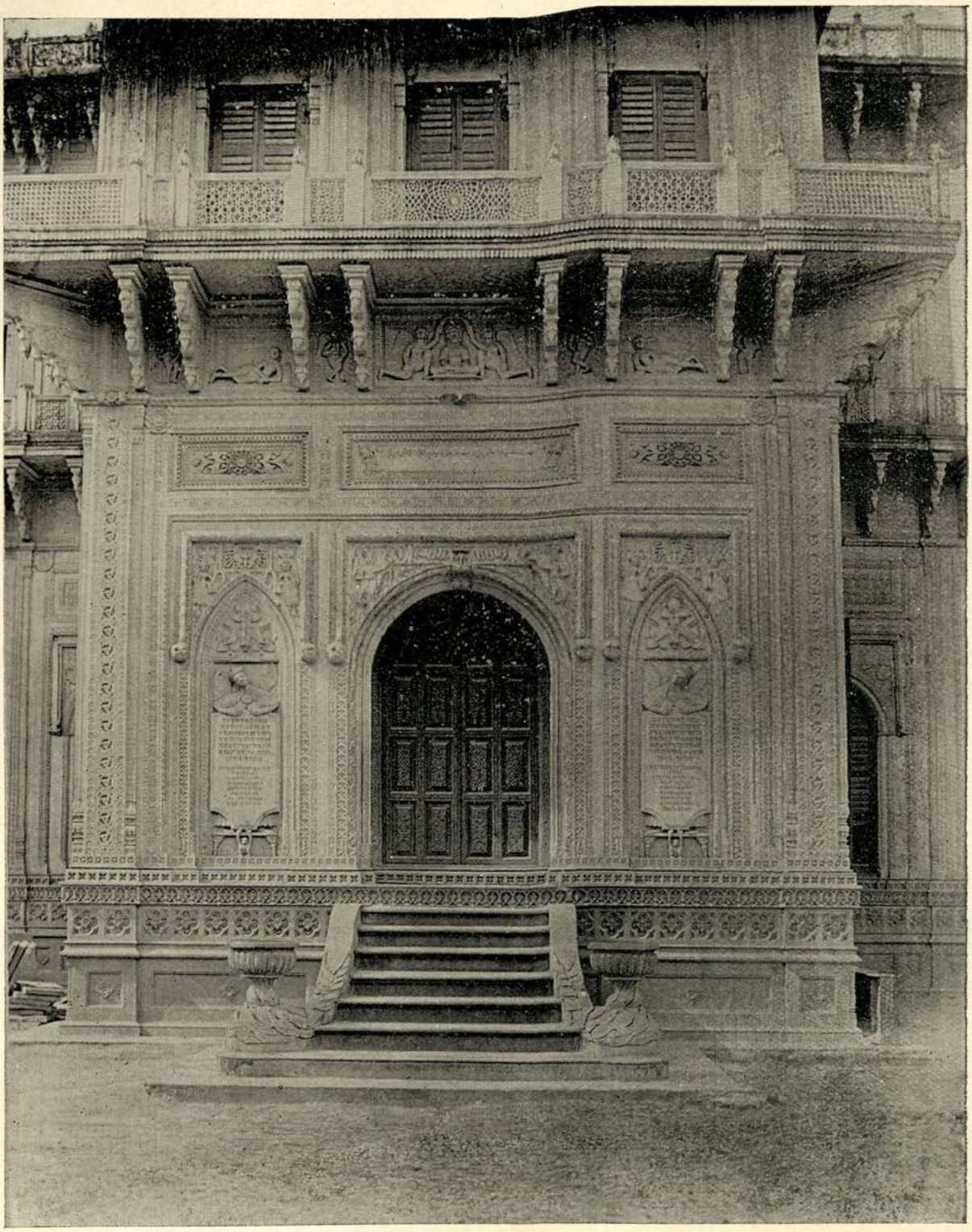
In the Silpa Shastra there are strict rules about the proportions of the body, just as there are strict rules about the proportions of a temple. Dividing the body into so many *tára* or parts, the Shastra assigns to each member the following number of *tára*:—

Face, 11.	Shoulder, 4.	Chest (width), 20.	Thigh, 24.
Neck, 4.	Upper extremity, 36.	Waist (width), 15.	Leg, 24.

"As to the forms of the members of the body, the Shastric divisions are equally precise. The forehead should be somewhat protuberant and shaped like the half moon, the upper arch being limited by the hair and the lower by the eyebrows, that are drawn like a bow, of which the inner end should be curvilinear and the outer extended towards the ear. The eyes, which are large, are generally compared to the lotus or to the eyes of a deer. The opening of the mouth is small, and the lips, formed like the petal of a flower, show a smile in many examples. The nose is curved, like the bill of a parrot or the flower of the sesamum. The breast is very prominent, the waist slender, and the hips large; the arm is made supple and round. In short every limb is round. Hard and stiff outlines are seldom found in Indian sculpture"—(P. C. Mukherji: Antiquities of Lalitpur).

The result of these minute directions as to the proportions of the body is, that figures are seldom portrayed with any fidelity to nature. There is little attempt to depict facial expression, and no attempt to depict muscular development. As Babu Mukherji remarks, every limb is round. The leg, for instance, from hip to foot is generally a straight line with little sign of a projecting kneebone; the toes are almost invariably square-cut, the big and little toe being of equal length. The only native statuary that I have seen to which these criticisms will not apply, is a small figure of a Benares *fakír*, made in Chunár. Here every muscle, vein, and bone are beautifully portrayed. There is an inferior copy of this statuette in the Club at Benares. It may incidentally be remarked, that in these provinces there are very few unique statues. Every native stone-carver, if asked how he gets his designs, will usually answer "*apne man se*;" this, however, merely means, that he has no model in front of him, but is copying some well-known type from memory. The native sculptor seldom works from a living model, but from early youth learns to produce certain conventional figures, which possess a fixed value in the market according to the size and quality of the stone.

The ancient Hindu kings never sought to perpetuate their memory by statuary. Had they done so, the statues would certainly not have survived Muhammadan iconoclasm, probably not even the reign of the next monarch, who usually waded to the throne through the blood of his predecessor. All Hindu statuary is devoted to religion; and, as the Hindu idea of the deity naturally turns to the grotesque and terrible, the whole artistic ideal has become largely distorted. The three-headed Brahma, the four-armed Vishnu, Bhairava with the 16 arms, and Ganesh with his elephant trunk are all monstrosities. At the same time, the intense conservatism



Town Hall, Mirzapur.
(Grey Sandstone).

of the Hindu in matters of religion restricted the originality and genius of the carver. At Deogarh, for instance, the figure of a standing Tirthankar is repeated with practically no variation more than a thousand times. At Benares the saints on the "Muni Temple" are exactly alike, and all over the provinces the same Ganesh sits over the lintel of the door.

The prospects of improvement in modern statuary are not great. The vicious habit of painting statuary is becoming increasingly popular, largely owing to the example of the Jaipur workmen, who cover their marble statuettes with tawdry paint. In the new temple at Bursana in Muttra district there is a large marble statue of Krishna, which presumably represents the latest fashion in statuary. The beauty of the white marble has been defaced by painting the eyes, mouth, palms of the hands, and the caste-marks on the forehead. However, this is no doubt a matter of taste, in which East and West differ. No defence, however, can be made for the terrible travesty of a *sipáhi* clad in painted uniform, with painted gun, painted moustache and lips, who is occasionally to be met with at the entrance of a temple. The Acharaj Monastery at Chunár probably furnishes the worst examples of this type.

The foregoing criticisms on statuary, somewhat modified, apply to animal sculpture also. There is usually a tendency to reproduce a conventional lion or conventional horse instead of portraying with fidelity the actual animal. There is no doubt, however, that the Hindu artist is happier in his animal sculptures than in his figures of human beings. The conventional animal of Hindu art is much more life-like than the conventional human being. From the earliest times the native sculptor has portrayed animals with great felicity. On the recently discovered capital of the Asoka pillar at Sarnath there are sculptures of animals more true to life than the modern conventional figures. The lions on top of the capital are, it is true, of the regular Persepolitan type; but the horse, lion, bull, and elephant on the panel beneath are executed in the most natural manner.

The old Hindu carvers were particularly fond of portraying animals, and these figures were usually given a very prominent part in the adornment of their temples. In the temples at Benares, in the old Jain temples of the Lalitpur Sub-division, and in the recent Buddhist excavations at Sarnath, animal and bird carvings occupy a prominent position. The commonest figures are elephants, monkeys, bullocks, horses, lions, parrots, peacocks, and crocodiles. Sculptures of fish also are found, Vishnu having taking the form of a fish in one of his incarnations.

There is no doubt that the elephant is usually the best portrayed from the earliest times onward. Every native artist can make a good carving of this animal. The bullock, as the "*vihana*" or vehicle of Shiva, is most frequently met with round Mirzapur and Benares, and is excellently represented in a crouching attitude. There is usually nothing grotesque about this bullock, but that epithet must be applied to the famous life-sized statue, which is placed in the courtyard of the Gyankup near the Golden Temple at Benares. The horse and lion vary considerably in artistic merit, but are usually too conventional. The tiger, curiously enough, hardly ever appears, probably because the lion had become crystallised by convention

long before the tiger had driven him out of India. Rampant horses are often used as struts for a balcony; hence struts in Mirzapur and Benares are sometimes called "*ghuriya*" even when the strut is a plain slab. In the new Bursana temple there is a panel, on which horses and elephants are admirably represented. The usual fault of the native artist is to portray his horse with features resembling those of the knight on a chess-board.

The parrot and peacock occupy a prominent position, especially in the semi-Muhammadan style, which now prevails at Muttra and is rapidly spreading down to Mirzapur and Benares. The Quran, as is well known, forbids the sculptured representation of birds and beasts as well as of human beings. But the less bigoted Muhammadans no doubt tolerated the carvings of birds and beasts, though they would have immediately suppressed the carving of idols or human beings. This is the probable explanation of the present-day Muttra style, in which the parrot or more usually the peacock are worked into a background of foliage or scroll work. The peacock is usually represented in bas-relief with tail erect and is beautifully carved by the Muttra workmen. The peacocks on the house-fronts at Khurja and Bulandshahr are the handiwork of Muttra *mistris*. The Mirzapur carvers are also very successful with the peacock. Special mention is due to the parrot screen of "*jáli*" work in Vindeshri Prasad's temple at Mirzapur. The elaborate character of the carving may be judged from the fact that a single piece about six feet long by three feet deep cost Rs. 200 and took a *mistri* six months to complete.

The crocodile is one of the oldest and most favourite animals in Indian sculpture. It is also the one which is the most grotesquely portrayed. Indeed it is often only the very distinctive and unique features of the crocodile which enable one to recognise what animal is intended by the sculptor. The crocodile is frequently depicted at the base of a spandril with some scroll work or floral pattern issuing from its mouth. It is also often used as a gurgoyle or water-spout, as, for instance, on the Mirzapur town-hall. The most life-like carving of this animal is to be found on the tower of Allahabad cathedral.

The baser animals, such as camels, donkeys, sheep, goats, jackals, and pig, are never carved on temples, because they are unclean. Consequently stone figures of these animals are difficult to obtain, though they are made in silver and bronze statuettes. It is a general rule that the stone-carver only carves figures which can be placed on a sacred building. The bronze-workers and silversmiths have a more secular clientele.

The future of animal carving is undoubtedly brighter than that of human statuary. Even in Muttra the former weathered the storm of Muhammadan conquest, and is still a distinctive feature of the Muttra style. It is not only a distinctive, but also a successful, feature of this style, whereas the same cannot be said of the modern human sculptures in this or any other district. Both Muhammadan and European influences are against the survival of figure-carving, animal or human. But as long as the Hindu faith continues, neither of these arts will ever become extinct.

CHAPTER VIII.

Stone inlay at Agra.

It is impossible to speak authoritatively about stone-carving in Agra previous to the age of the Moghal emperors. Great proficiency had been reached by the middle of the 16th century, especially in sandstone carving; and under the patronage of Akbar, Jehangir, and Shah Jehan the art steadily advanced, until it culminated in the Táj Mahal.

In Baber's reign the Agra carvers first began working for the Muhammadans, but none of Baber's work has survived. In 1566 Akbar commenced his palace and the dargah at Fathpur-Sikri. From this time onward until the completion of the Táj Mahal in 1648 we have a continuous record of Agra stone-carving. During this period two forms of the stone-cutter's art are especially characteristic—the *jáli* work or pierced tracery in sandstone and marble; and *manabbat-kari*, the inlaying of precious stones in marble. It is intended in this chapter to deal with the latter subject only.

Manabbat-kari, which is sometimes called Indian *pietra dura*, is itself a development with or without foreign impulse from a rough mosaic work, which characterized the earlier style of the Moghal epoch. There were, generally speaking, three stages in the perfection of inlay work.

The first stage was bold patterns in black and white marble, porphyry, and other stones. There are some tentative mosaics of this kind at Fathpur-Sikri, but the best example is the gateway at Sikandra Bágh. The inlaid mosaics are of considerable size, and the effect produced is consequently much broader than that of the later inlay. It is especially adapted to large buildings such as the Sikandra Bágh gateway, where the finer inlay work would be wasted.

The second stage is illustrated by the tomb of Etimad-ud-Daula, where the mosaics are far more elaborate and contain a much greater number of stones. The patterns, though more intricate than the earlier mosaics, are still purely arabesque. This tomb is said to have been constructed during Jehangir's reign (1605—28 A.D.) and is characteristic of the transitional stage between the bold simplicity of Akbar's architecture and the effeminate beauty of Shah Jehan's style.

This stage is succeeded by the true *manabbat-kari*, which is so marked a feature of Shah Jehan's palace in the fort and of the screen in the Táj. Of these the latter is a natural development of the former, differing chiefly in delicate effects of light and shade, but between the arabesque designs at Etimad-ud-Daula's tomb and the first flower patterns at the fort there seems to be some link missing. This has been supplied by the theory of workmen imported from Italy, as the extraordinary transition is said to admit of no other explanation. The modern stone-inlayers at Agra have no direct tradition confirming this theory, the tradition produced by the head of the Nutthoo Ram firm, that the art came from Egypt and Greece, being obvious nonsense. But there are the following plausible reasons for the Italian theory.

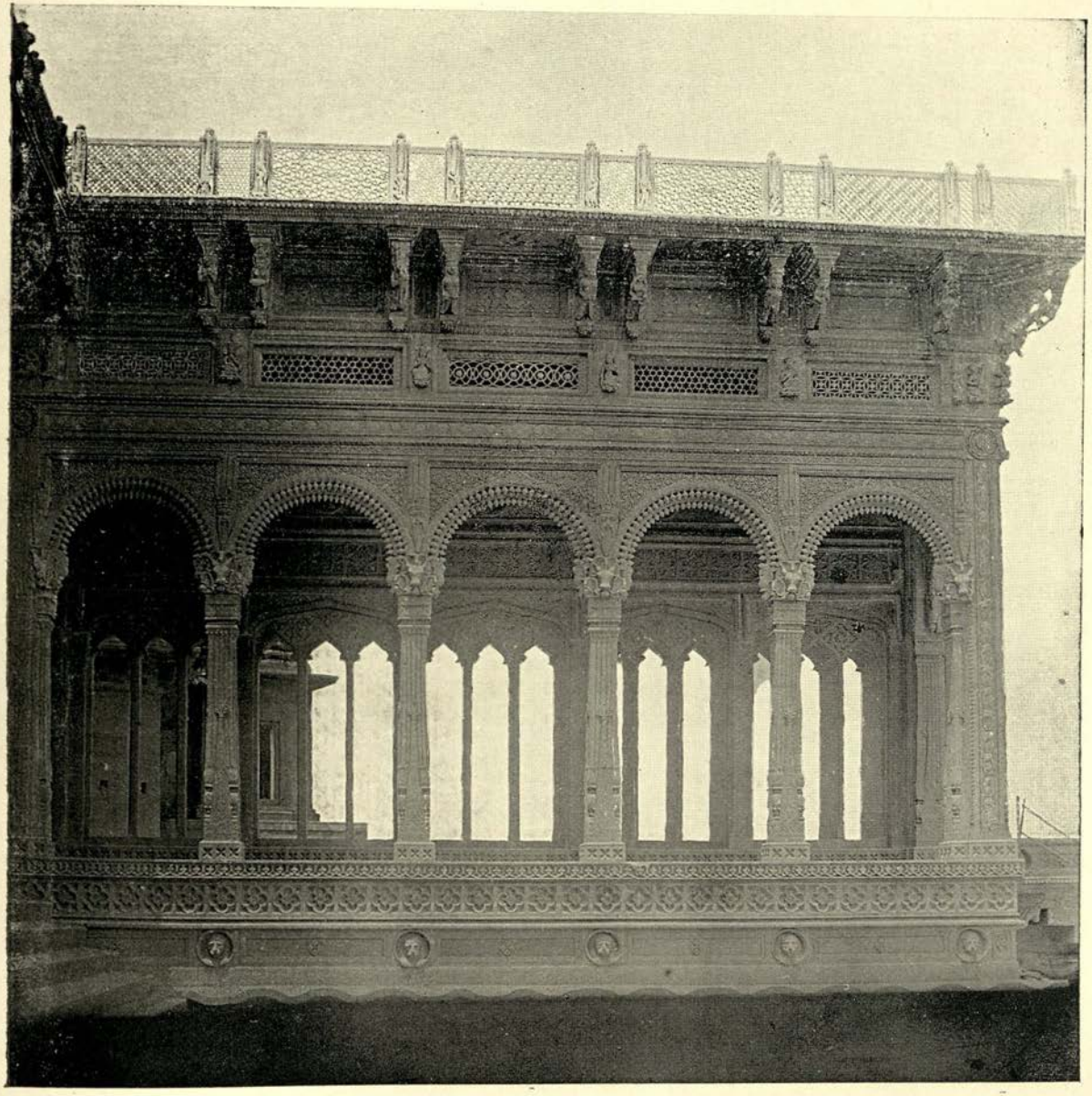
We know that early in the 17th century "*pietra dura*" was invented and became the rage at Florence and throughout all Europe. Bernier and Tavernier mention the name of Austin de Bordeaux as an artist in Shah Jehan's service.

He executed the mosaic of Orpheus playing to the beasts, which once adorned Shah Jehan's throne at Delhi and was in the Indian Museum at South Kensington till recently, when it was restored by Lord Curzon to its original place. Manrique (1653) states that the Táj was designed by Jeronimo Verroneo, an Italian artist, whose tomb in the Agra cemetery gives the date of his death at Lahore as 1640. There is undoubtedly a general resemblance between the *manabbat-kari*, and the *pietra dura* of the Italian School. The flower patterns with their shading and graceful curves show an absence of conventionality opposed to the ordinary lines of Indian art. Three and a half flowers are still pointed out in the Táj screen as the work of the European master. And the Italians themselves have a tradition that an Italian designed the Táj Mahal and was subsequently blinded, that he might not reproduce the design in Europe.

There was undoubtedly a large colony of Europeans at Agra during this period as is witnessed by the number of tombs in the old cemetery. Most of these are Portuguese; but there are at least four Italians, Bronzoni (died 1677), Bernardino (1628), Verroneo (1640), and William of Geneva (1614). If it were not for the early date of the last-named, we should be tempted to connect him with the builder's mark in the Táj the only similar mason's sign being in the cathedral at Geneva.

Against these arguments, however, we must set the rival Muhammadan tradition, that the developments of Shah Jehan's time were due to the influence of Persian artists, especially Ali Mardan Khan, and that a Constantinople Turk, named Effendi, built the Táj Mahal. In Muhammad Moinuddin's "Agra" there is a list of the 38 chief artificers employed on the Táj, according to the Musalmán historians. It is noticeable that not a single Italian name appears, although Hindu workmen are mentioned. Workmen from Rum, Samarkhand, Shiraz, Arabia, Delhi, Multan, Balkh, Bukhara, Baghdad and Sham, are all found on this roll, which is obviously intended to show that Shah Jehan employed no mere local craftsmen, but men selected from far and wide. It is most improbable that the Muhammadan historians would have deliberately concealed an Italian name merely in order to show the Eastern origin of the inlaying art. Their natural motive was to glorify the Táj and Shah Jehan, to which end they would gladly have recorded the presence of workmen from far-off Italy.

Again, does the greater munificence of Shah Jehan account sufficiently for the superiority of this alleged Italian workmanship over the *pietra dura* in Italy? Further, tradition assigns not the detail, but the design of the Táj to the Venetian, whereas the design is clearly Oriental. The tradition about the blinding of the artist is found with slight variations in the folklore of many nations and is probably a myth. On the whole there is no doubt that there was some European influence at work in Moghal art during this period, but its extent will never be known and is generally exaggerated. In connection with this historical controversy it is interesting to hear that Sir Edwin Egerton, British Ambassador at Rome, is at



Stone Ghat on River Ganges, Mirzapur City.
(Chunar Sandstone).

present in Florence, arranging to secure the services of a mosaicista *(pichekar)* to restore the panels of inlaid black and coloured marbles in the wall behind the great throne of the Delhi Diwán-i-ám.

Whatever the origin of *manabbat-kari* or the nationality of its first workers, since Shah Jehan's reign Muhammadans and Hindus alike have carried on this industry. At the present day the largest workshop in the city of Agra belongs to the Brahman firm of Natthu Ram, and the majority of his workmen are Brahmans, except a few Chamars who do the rough-hewing. The work is purely Muhammadan in style, the designs being mostly floral patterns, copied from the masterpieces of the fort and the Táj Mahal. A few Hindu designs, however, are also made, such as parrots and butterflies.

The finest modern example of inlaid work in Agra is to be seen, strange to say, in a small Jain temple in the city. The inner court and sanctuary of this shrine are being ornamented by most elaborate *pietra dura* in the conventional flower patterns. The stones have been very carefully selected, and the workmanship is admirable, some of the designs being extremely minute. The wall patterns are marked by some striking flowers of lapis lazuli: turquoises are conspicuous on the altar, which will be topped by a *jáli* screen of a single chaste design. The floor is of great beauty; and, when completed, the building will be a gem of its kind.

This is but one more instance of the triumph of Musalmán art over the Hindu mind. The contrast between this modern shrine and the old mediæval Jain temples of Deogarh shows, that even in the immemorial East the Heraclitean doctrine finds no exception.

The process resulting in the production of a piece of inlay is as follows— First, the marble, which usually comes from Makrana in Rájputána, has to be rough hewn. This is *mota kám* and is done by Chamárs and other low-caste workmen. The stone is smoothed, and levelled with chisels *(tanki)*. When the workman by aid of compass and right angle has shaped the stone exactly, a final polish is given with Jumna sand. The marble is now ready for the operation of the inlayer. The semi-precious stones used in inlay are first cut roughly by a workman, known as the *kuttiya*, who uses a wire bow *(tárkumáni)*. These small pieces are then handed on to another workman, who fastens them on with shellac *(lák)* to steel patterns. The stone with the steel pattern adhering is then applied to the grindstone *(sán)*, until the precious stone is worn away to the exact shape of the steel pattern. The minuteness of the work may be gathered from the fact that there is a separate steel pattern for every petal of a flower, every claw and feather of a bird. This process, therefore, requires a good workman, who will draw about Rs. 15 to Rs. 20 per mensem, whereas Rs. 10 are the average wage of a *kuttiya*.

The marble block and the stones are now ready for the inlayer, who is usually a man of some artistic ability and draws from Rs. 20 to Rs. 30 a month. He works from a design, which he copies on to the slab by the aid of mica tracing paper. His tools consist of a number of chisels, of different shapes and fineness, known as *nirji* and *nirja*, together with a compass and right angle. Through the mica tracing he pricks off on the marble each point of a leaf or petal, and then chisels a groove or

bed in the marble to receive the inlay stone, which has already been shaped to the exact size by the previous workman. In making the groove the exact size and no more lies the difference between good and bad workmanship. If the groove is too big, the cement, made of white lime and gum, with which the inlaid stone is fastened, will be apparent; but in first-class work the stone will fit so exactly, that no joining will be apparent at all. This will be observed by a comparison of the exquisite inlay at the Táj or the fort with the earlier work on Etimad-ud-Daula's tomb. When the stone has been fixed with cement, it is covered with a small piece of glass, over which is laid charcoal. The glass is removed as soon as the anealing process is complete. The inlay is then polished with putty powder and is ready for sale.

The following are the stones most used by the inlayer:—

White marble, Makrana.
Black „ Rájputána.
Yellow „ *(abri)*, Jesalmeer.
Gwalior stone *(rattak)*, Gwalior.
Jasper *(zabarjad)*, Cambay.
Bloodstone *(shadinaj)*, Jabbalpur.
Agate and onyx *(sulaimani)*, river Ken.
Cornelian *(aqiq)* Bombay, Cambay, and Bánda.
(Special varieties said to have been brought from Yeman and Baghdad for Shah Jehan.)
Carbuncle *(tamara)*, Jaipur.
Jade *(pazahr)*, Kumaun.
Lapis lazuli *(lazuward)*, Badakhshahr and Ceylon.
Cloudstone *(badal)*, Sablgarh.

To these may be added coral *(mung)*, malachite, bamboo stone, turquoise *(firuza)*, *ujuba*, a kind of porphyry, and the alleged gold stone, only found in the Táj screen and of unknown source. According to the Muhammadan chronicles 645 diamonds are said to have been used in the Táj. Emeralds were used in the Fort, but all were stolen with the exception of one emerald, still shown in a pillar of the Jasmine Tower. An interesting list of the precious stones, used by Shah Jehan for the decoration of the Táj, will be found in Muhammad Moin-ud-din's recently published work on Agra. He is, as would naturally be expected, a staunch opponent of the theory that India owes to Italy the art of inlaying.

Mother of pearl *(sadaf)* is also used in inlay being procured from Bombay. Unfortunately it is very liable to chip, for which reason first-class workmanship is rarely bestowed upon it. Mother of pearl roses, inlaid with a rose-coloured cement, are much manufactured for sale to visitors. There is, however, one notably fine piece of inlay work in this material, namely the Mother of pearl *tesseræ* upon the bases of the columns, supporting the canopy of Shaikh Salim's cenotaph at Fathpur-Sikri. E. W. Smith describes the workmanship thus: "The inlaying is so intricate, that it looks like damask work, but in Mother of pearl instead of gold or copper wire. Each little piece of Mother of pearl is exactly shaped and

fitted into the allotted position previously prepared for it, and then secured with minute brass pins and shellac. It is impossible to describe the effect of the Mother of pearl as seen in the dim light of the mortuary chamber. It is one of those things which defy description, and in order to realize its beauty it must be seen. The inlaying is most minutely and beautifully executed. There is nothing like it elsewhere in India." This praise will probably seem somewhat exaggerated to most people and certainly cannot be extended to the very second-rate Mother of pearl inlay upon the canopy. The state of this canopy explains why Mother of pearl is not frequently used in good work. It is too delicate to repay the time and trouble of the inlayer.

The work is naturally slow, and, if it was not for the cheap rate of labour, the price of a good piece of inlay would be enormous. As it is, the prices are very moderate. An elaborate marble inlaid tray, which is the work of two months for two workmen, will only cost about Rs. 200. At present the inlay work is confined mostly to the production of small articles, such as paper-weights, chess-boards, covers of boxes, &c. A certain number of workmen have also been employed by Government on repairs to the Táj and the Fort. But at the present day, when the rulers of the land build a railway or a canal instead of a Táj, there is no longer demand for the countless inlayers who must have existed in the reign of Shah Jehan. In fact there are only about eighty to a hundred inlayers in Agra, and the work is not done anywhere else in these provinces.

Agra is situated close to Jaipur and the other places, from which the stones employed are chiefly derived, and, as suggested by Mr. Pullan, the trade possesses great possibilities, if properly managed. The Agra inlayers have made the most beautiful tables and mantel-pieces to order, and their work would be admirably suited for fonts, pulpits, and mausoleums. Once the quality of their work became known in Europe and America, the industry would expand rapidly. Capital would of course be necessary for establishing agencies in the chief cities of the world, but with proper arrangements the investment could not fail to be a profitable one.

CHAPTER IX.

Jali Work.

Jáli, as is well known, is the Hindustani name for the stone fretwork, which, now the chief beauty of Muttra carving, was originally introduced by the Muhamdans at Agra and Fathpur-Sikri. It is said to have been invented by the Muhammadans to take the place of the images with which the Hindus adorned their temples. This is probably true; for there are no signs of *jáli* work in the early Hindu architecture, such as the Buddhist buildings at Sarnath, or the mediæval Jain temples at Deogarh: nor in the modern Hindu carving at Benares, influenced as it is by the Muhammadan style, is there much of this pierced stonework. At Muttra it is the most characteristic feature of the stone-carving and has made Muttra one of the most beautiful cities in these provinces. The design no doubt was originally copied from fretwork in wood.

Jáli work in these provinces is done in marble and sandstone. The most notable examples of the former are the screens of Shaikh Salim Chhishti's tomb (1581 A.D.) at Fathpur-Sikri, Akbar's tomb at Sikandra (circ. 1613), Etimad-ud-Daula's tomb (1620), and the Táj (1630—48). The most beautiful of these is the earliest, of which an illustration will be found at the end of this monograph. But all are so nearly equal in merit, that many people would no doubt disagree with this award. All the screens are composed of countless geometrical patterns sometimes two distinct patterns being worked into the same screen, one being contained within the other: sometimes in the later work a floral pattern runs through a geometrical pattern. The former is found in a few places at Fathpur-Sikri, but had not come into general fashion during Akbar's reign. The floral pattern known as the *subacka* is beautifully executed in marble in the Jasmine Tower, the Adalat Khas and the Táj. But the older geometrical patterns have maintained their popularity and are usually made in preference to the floral at the present day. The number of these geometrical patterns is legion, the commonest being the *athwans, chhemans*, and *badrun*. As the words show, they are named after the number of angles in the geometrical figure: a workman tells the patterns by counting with his fingers the holes in the figure.

Though the best examples of *jáli* are made of marble, the greatest portion is made of red and white sandstone both at Fathpur-Sikri and in all the modern buildings at Agra, Muttra, and Mirzapur. The finest example is the old red sandstone dargah, built in 1618 by Muhammad Wasil at Chunár. The red sandstone screens here are of exceptional beauty, but are rapidly crumbling away. Sandstone is of course much cheaper and easier to work than marble, but will not last in the same way.

In Mr. E. W. Smith's book on Fathpur-Sikri, there are some beautiful illustrations of *jáli*, to which anyone interested in the subject is recommended to refer. Drawings of the usual geometrical patterns are kept in all the big *kárkhánas;* but there is a tendency, in Muttra particularly, to produce a few favourite patterns only.

The workman first draws the *jáli* pattern in pencil on the stone by aid of his compass and right angle. It is sometimes said to be done by eye alone, but accuracy in such a case is impossible. So all the best work is done with the mechanical aids mentioned above. After outlining the pattern in pencil, the workman cuts through the stone with chisel *(tanki)* and hammer *(hatora)*. If the stone is very thick, a borer *(barma)* is used, or the pattern is half cut first from one side, and then finished from the other, the slab having been turned over. After the stone has been cut through, it is smoothed with chisels, and then given a final polish with water and the *karundum* stone, which comes from Jabbalpur.

The price of the work of course depends both upon the stone employed and the intricacy of the pattern. An ordinary bit of *jáli*, such as is used for a balustrade to a house, will cost in sandstone about Rs. 35 for a piece five feet long by two feet high. But intricate patterns, especially when worked in marble, will cost a great deal more.

Chunar Dargah, District Mirzapur.
(Yellow and Pink Chunar Sandstone).

The danger of breaking the stone, even in the most delicate work, is not so great as would be supposed. A good workman should not break more than one or two pieces in a hundred, unless the stone itself is faulty. A breakage, except in this latter case, is always due to carelessness or unnecessary violence with the hammer.

Jáli work is almost entirely used for architectural ornament; but in Agra a small trade is carried on in fret-work boxes, made of marble, alabaster, and soap-stone, which are sold to sight-seers. *Jáli* work, however, has not the same prospect of success in the European market that Agra inlay would undoubtedly have if properly advertised. Owing to the climatic conditions of Europe *jáli* could not be used in screens or windows, exposed to the outer air. It is, however, just this back-ground of outer light and sunshine, which affords the necessary foil to set off the beauty of the perforated stone and the intricacy of the design. Even in India, as is shown by the sandstone screens at Chunár, perforated stone becomes brittle and fragile after the lapse of two centuries or more. But in England the sudden alternations of heat, rain, and frost would destroy such delicate work in a very few years. The state of the Colleges at Oxford and Cambridge show only too clearly the destructive effect of climate upon stone. Where substantial walls peel and crumble away like the fabric of a dream, there would be short shrift for the dainty and fragile patterns of perforated stone.

Jáli work is the Oriental equivalent to the stained glass of our European churches. It would be futile to compare the merits of the two. The former is the Eastern artist's device to subdue the fierce heat of the sun, while giving free access to the breeze; the latter is intended for a climate where wind and cold and rain prodominate. Both alike, however, give that dim religious light, that feelings of subdued calm, which appeal so strongly to the emotional part of man. Gazing at the beautiful west window of New College chapel, lighted by the setting sun, or standing by the cenotaph of Akbar with its exquisite screens of pierced marble, we feel alike that religious emotion which art at its highest always produces in the mind of man.

CHAPTER X.

Conclusion.

As has been stated in previous chapters, the style of carving in these provinces tends yearly to become more Muhammadan. This result has been produced mainly by the commandment of the Qurán, which forbids the sculpture of human or animal figures. Akbar, it is true, tolerated these sculptures; but they played an insignificant part in the ornamentation of his own buildings. His successors were not so tolerant, but forcibly constrained the Hindu carvers to adopt the Muhammadan style of ornamentation. As a result, a large section of the Hindu *mistris*, in particular at Muttra, forgot their traditional style. Their own temples had for the most part been destroyed, while the Moghal masterpieces at Agra and Delhi exercised a steady influence on their craft, which had always been imitative rather than creative.

European influence has up to the present affected only slightly the native style of stone-carving. The influence in fact has been mainly negative, discouraging rather than altering the eclectic style of to-day. The Spartan simplicity of our public buildings has undoubtedly encouraged a similar simplicity in native architecture. The wealthy native argues that, what is good enough for the "Sarkár" is also good enough for himself. The result is that *pseudo*-Italian Villas, whitewashed and devoid of ornamentation, are replacing the elaborately carved buildings of an earlier era. The residences of native chiefs in Benares and Bindraban are illustrations of this influence. From the sanitary point of view, this change is no doubt excellent, but artistically it is indefensible. Native art, however, has been and always will be devoted mainly to religious purposes. Here European architecture will not exercise so great an influence though the modern Bursana temple, described in a previous chapter, shows that this influence is not a negligible quantity. In another twenty-five years it will be interesting to see how far Hindu religious architecture has become "Europeanised." It would be rash to prophesy; but with the increase of native subordinate engineers the possibilities are great.

With regard to the smaller articles, produced by the stone-carver, we do not think that there is the same gloomy outlook as is foreseen by the author of the monograph on wood-carving. He points out that the old art of wood carving is rapidly degenerating into the production of cheap, badly-made articles, which are intended for sale to tourists. The carpenter and the wood-carver have now adopted separate professions, whereas it is essential that the latter should have a sound knowledge of carpentering.

In stone-carving there is not this same danger. It is true that the globe-trotters who throng into Agra and Benares during the cold weather, tempt the stone-carver and inlayer to prostitute their art by producing cheap and nasty imitations. But this has not affected the workmanship of high class firms, such as Natthu Ram, nor is it ever likely to deteriorate the workmanship of stone-carvers at large. Stone is not so portable as wood and a cheap, badly-carved stone screen would, owing to its weight, check the enthusiasm of a tourist, who would readily buy an equally bad wooden screen. Stone-carving from its very nature is intimately connected with architecture, and any cause, which does not affect the one, will not seriously affect the latter.

Art, in all its many branches, is a luxury, a "kallopisma ploutou" the control and direction of which must necessarily lie in the hands of the wealthy. For this reason it is often argued, that the State has neither the right nor the power to interfere in the artistic evolution of a country. But the employers of this argument forget that the Government itself is far the wealthiest member of the community and voluntarily or involuntarily must exercise an enormous influence on every branch of art. This is specially true in the case of architecture, since Government yearly erects hundreds of houses, offices, churches, and other buildings. It is therefore most unfortunate that this great patron of architecture should popularize a style, which is completely foreign to indigenous art and totally inimical to native

stone-carving. This result, however, had been largely unavoidable. Government buildings never were intended to be things of beauty; and were this fact better known among the wealthy native patrons of architecture, the baneful influence of these buildings upon native architecture would be largely removed. It is most desirable that this illusion should disappear and the old ideals, in which architecture and stone-carving were united, should once more return. To this end nobody has ever worked more strenuously and enthusiastically than our present Viceroy. The keen interest, which he has shown in the restoration of the historical buildings of India, has done much to correct this false impression and inspire the natives with an admiration for the past glories of their architecture and stone-carving.

It has been shown, that there is small prospect of improving the education of the native *mistri*. For in this country the stone-carver does not belong to the leisured classes, who can afford and appreciate a liberal education. He is seldom even literate, and when he is, receives practically no help from his own literature. The Technical Art Series, published by Government, is at present far too expensive a work, and is probably as unfamiliar to the average carver as his own Silpa Shastras. Even if Government issue a much cheaper series, we very much doubt whether these books would reach the workman.

With the exception of the few educated master workmen, the only way in which the native carver can be educated, is by eye. Given a new design, he will copy it, and copy it well: otherwise he will contentedly copy the same old designs to the end of time. The only way in which Government can educate him, is through the owners of the big stone-carving firms. For these large *kârkhânas* are the only effective schools of art in India. Their owners should therefore be encouraged by exhibitions, at which valuable prizes would be awarded, and by commissions to erect artistic public buildings, consonant with the best native taste.

We are not so sanguine as to believe that to work in a *kârkhâna* is a liberal education or that exhibitions are a specific against artistic degeneracy. But the native mason is much more likely to improve under the teaching of a skilful and educated *mistri* than he would be, if working by himself. The opportunity of competition afforded by exhibition would stimulate the work of the big firms and show to the native patron that Government takes a real interest in modern stone-carving and does not artistically prefer a modern kutcherry to a 17th century Diwan-i-am.

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